



# STIC Search Report

EIC 1700

STIC Database Tracking Number 104287

TO: Margaret B Medley

Location: CP3 4D09

Art Unit : 1714

September 24, 2003

Case Serial Number: 09/889438

From: Kathleen Fuller

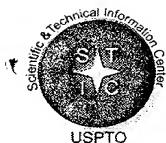
Location: EIC 1700

CP3/4 3D62

Phone: 308-4290

[Kathleen.Fuller@uspto.gov](mailto:Kathleen.Fuller@uspto.gov)

Search Notes



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact **the EIC searcher or contact:**

**Kathleen Fuller, EIC 1700 Team Leader**  
308-4290, CP3/4-3D62

MAIL, FAX, E-MAIL, OR CALL

## **Voluntary Results Feedback Form**

> *I am an examiner in Workgroup:*  *Example: 1713*

> *Relevant prior art found, search results used as follows:*

- 102 rejection
- 103 rejection
- Cited as being of interest.
- Helped examiner better understand the invention.
- Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- Foreign Patent(s)
- Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

> *Relevant prior art not found:*

- Results verified the lack of relevant prior art (helped determine patentability).
- Results were not useful in determining patentability or understanding the invention.

**Comments:**

Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62



## SEARCH REQUEST FORM

## Scientific and Technical Information Center

Requester's Full Name: Margaret B. McAllig Examiner #: 10850 Date: 9/23/03  
 Art Unit: 1714 Phone Number 30-825187 Serial Number: 09/889438  
 Mail Box and Bldg/Room Location: 4D Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: STABILIZER MIXTURES

Inventors (please provide full names): FRAUCOIS GUGUMUS

Earliest Priority Filing Date: (EPO) 008160621,3 07/14/2000

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Search for the stabilizer mixtures for claim 1 and the various ~~independent~~ claims, and its use with organic material of synthetic polymer, e.g. polyolefin of claims 20, 21,

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher:	<u>K. Fuller</u>	NA Sequence (#)	STN
Searcher Phone #:		AA Sequence (#)	Dialog
Searcher Location:		Structure (#)	<u>3</u> Questel/Orbit
Date Searcher Picked Up:	<u>9/24/03</u>	Bibliographic	Dr.Link
Date Completed:	<u>9/24/03</u>	Litigation	Lexis/Nexis
Searcher Prep & Review Time:	<u>2.0</u>	Fulltext	Sequence Systems
Clerical Prep Time:		Patent Family	WWW/Internet
Online Time:	<u>61</u>	Other	Other (specify)

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Property values tagged with IC are from the ZIC/VINITI data file  
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STRUCTURE FILE UPDATES: 23 SEP 2003 HIGHEST RN 591719-82-3  
DICTIONARY FILE UPDATES: 23 SEP 2003 HIGHEST RN 591719-82-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

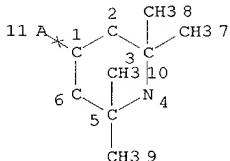
=> FILE HCAPLUS  
FILE 'HCAPLUS' ENTERED AT 11:39:49 ON 24 SEP 2003  
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FILE COVERS 1907 - 24 Sep 2003 VOL 139 ISS 13  
FILE LAST UPDATED: 23 Sep 2003 (20030923/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> D QUE  
L37 11 SEA FILE=REGISTRY ABB=ON (106990-43-6/BI OR 11097-59-9/BI OR  
178261-60-4/BI OR 178261-61-5/BI OR 557-04-0/BI OR 557-05-1/BI  
OR 70198-29-7/BI OR 71878-19-8/BI OR 9002-88-4/BI OR 9003-07-0/  
BI OR 9010-79-1/BI)  
L38 STR



20,621 structures from the query

## NODE ATTRIBUTES:

NSPEC IS RC AT 11  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 11

## STEREO ATTRIBUTES: NONE

L40 20621 SEA FILE=REGISTRY SSS FUL L38  
 L41 11750 SEA FILE=HCAPLUS ABB=ON L40  
 L43 25 SEA FILE=HCAPLUS ABB=ON L41(L)HINDER? (3A)AMINE# (L)MIXTURE?  
 L44 29 SEA FILE=HCAPLUS ABB=ON L41 AND HINDER? (3A)AMINE# (3A)MIXTURE?  
 L45 50 SEA FILE=HCAPLUS ABB=ON L43 OR L44  
 L46 8 SEA FILE=HCAPLUS ABB=ON L45 AND (ZN OR ZINC OR MG OR MAGNESIUM  
 )  
 L51 37 SEA FILE=HCAPLUS ABB=ON (TWO OR DIFFERENT) (3A)HINDER? (3A)AMINE  
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 L57 3 SEA FILE=REGISTRY ABB=ON L37 AND (1/ZN OR 1/MG)  
 L58 10218 SEA FILE=HCAPLUS ABB=ON L57  
 L59 4 SEA FILE=HCAPLUS ABB=ON L45 AND L58  
 L60 1 SEA FILE=HCAPLUS ABB=ON (L52 OR L54) AND L58  
 L61 14 SEA FILE=HCAPLUS ABB=ON L46 OR L53 OR L56 OR L59 OR L60

=> D L61 ALL 1-14 HITSTR

L61 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2003:527593 HCAPLUS

DN 139:86453

TI Heat- and weather-resistant electrically insulating resin composition for  
 electric wire environment friendly in disposal

IN Nishiguchi, Masaki; Yamada, Hitoshi

PA The Furukawa Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

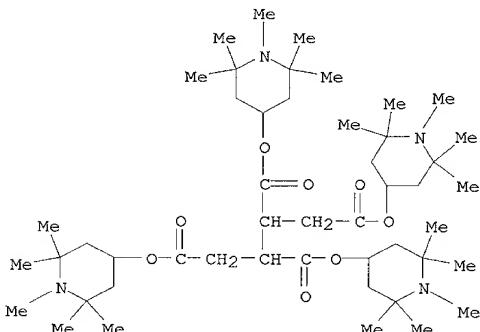
LA Japanese  
 IC ICM C08L023-00  
 ICS C08K005-07; C08K005-103; C08K005-13; C08K005-14; C08K005-17;  
 C08K005-3475; C08K005-372; C08K009-06; C08L053-02; H01B003-00;  
 H01B003-44; H01B007-295  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 39, 73, 76  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003192846	A2	20030709	JP 2001-395486	20011226
PRAI	JP 2001-395486		20011226		
OS	MARPAT 139:86453				

AB The compn. contains (a) 100 parts of a polyolefin, an ethylene polymer, and/or a styrene block copolymer, (b) 60-300 parts of a metal hydrate surface-treated with a crosslinkable silane coupler, (c) 1-8 parts of a hindered phenol-type antioxidant, (d) 0.4-8 parts of a benzophenone- and/or benzotriazole-type UV absorber, (e) 1-7 parts of a hindered amine light stabilizer, (f) 0.01-1.0 part of an org. peroxide, and (g) 0.03-1.8 parts of a (meth)acrylate- and/or allyl-type crosslinking aid, which are heated and kneaded at a temp. higher than the m.p. of the polymer. The elec. insulating elec. wire is that obtained by covering of an elec. conductor and/or an optical fiber with the compn. optionally followed by crosslinking. Release of heavy metals or corrosive gases in disposal and incineration of the elec. wire is avoided. Thus, 67:33 ethylene-vinyl acetate copolymer (EV 180) 50, propylene block copolymer (PN 610) 15, a styrene-type elastomer (SEPS 4077) 25, softening agent (Diana PW 90) 5, maleated polyethylene (Admer XE 070) 5,  $Mg(OH)_2$  treated with a vinyl-terminated silane coupler (Kisuma 51H) 130, hindered phenol (Irganox 1010) 3, benzophenone (ADK Stab 1413) 2, **hindered amine** (ADK Stab LA 52) 1.5, org. peroxide (Perhexa 25B) 0.2, trimethylolpropane trimethacrylate (NK Ester 3G) 0.6, and Ca stearate 1 part were mixed, kneaded at 210.degree., and extruded on a Sn-coated Cu twisted wire to give the elec. wire.  
 ST heat weather resistant elec insulating resin; elec wire insulating cover polyolefin; ethylene vinyl acetate copolymer elec insulating; surface treated **magnesium** hydroxide fireproofing agent; crosslinkable resin compn elec wire; environment friendly elec insulating wire  
 IT Coupling agents  
 (crosslinkable, metal hydrate treated with; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)  
 IT Electric cables  
 Fire-resistant materials  
 Heat-resistant materials  
 Weathering  
 (heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)  
 IT Polyolefins  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)  
 IT Electric conductors  
 Optical fibers  
 (heat- and weather-resistant elec. insulating resin compn. for elec. wire involving)  
 IT Isoprene-styrene rubber

- RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(hydrogenated, block, triblock, Septon 4077; heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT Antioxidants  
Crosslinking  
Light stabilizers  
UV stabilizers  
(in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT Fireproofing agents  
(metal hydrates; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT Crosslinking catalysts  
(org. peroxides; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 24937-78-8, Ethylene-vinyl acetate copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(EV 180, V 527 4, EV 40LX; heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 1843-05-6, ADK Stab 1413 3896-11-5, ADK Stab LA 36  
RL: MOA (Modifier or additive use); USES (Uses)  
(UV absorber; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 6683-19-8, Irganox 1010 29598-76-3, ADK Stab AO 412S  
RL: MOA (Modifier or additive use); USES (Uses)  
(antioxidant; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 109-16-0, NK Ester 3G  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(crosslinking aid; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 78-63-7, Perhexa 25B  
RL: CAT (Catalyst use); USES (Uses)  
(crosslinking catalyst; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 1309-42-8, Magnesium hydroxide 265997-88-4, Kisuma 5LH  
RL: MOA (Modifier or additive use); USES (Uses)  
(fireproofing agent; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 9010-79-1, PN 610 9010-86-0, A 714 25213-02-9, Umerit 0540F 112938-52-0, Admer XE 070  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 25038-32-8  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(isoprene-styrene rubber, hydrogenated, block, triblock, Septon 4077; heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)
- IT 91788-83-9, ADK Stab LA 52  
RL: MOA (Modifier or additive use); USES (Uses)  
(light stabilizer; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 91788-83-9, ADK Stab LA 52  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (light stabilizer; in heat- and weather-resistant elec. insulating  
 resin compn. for elec. wire environment friendly in disposal)  
 RN 91788-83-9 HCAPLUS  
 CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-  
 piperidinyl) ester (9CI) (CA INDEX NAME)



L61 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2003:274836 HCAPLUS  
 DN 138:288742  
 TI Propylene polymer-based compositions and their automobile interior parts  
 IN Miyake, Yuichi; Inoue, Kaoru; Kobayashi, Akira; Murayama, Mitsuhiro  
 PA Nippon Polymers Co., Ltd., Japan; Toyota Motor Corp.  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L053-00  
 ICS B29C045-00; C08J005-00; C08K003-34; C08K005-098; C08K005-3432;  
 C08L023-04; B29K023-00; B29L031-58  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 37  
 FAN.CNT 1  
 PATENT NO. KIND DATE APPLICATION NO. DATE  
 PI JP 2003105163 A2 20030409 JP 2001-298938 20010928  
 PRAI JP 2001-298938 20010928  
 OS MARPAT 138:288742  
 AB The compns. comprise (a) 20-74% propylene-ethylene block copolymer (I)  
 with MFR (230.degree., 2.16 kg) 20-40 g/10 min, composed of 70-75%  
 polypropylene part (A unit) with isotactic pentad fraction (IPF)  
 .g<sub>tor</sub>eq.0.97 and MFR (230.degree., 2.16 kg) 100-200 g/10 min and 25-30%  
 ethylene-propylene random copolymer part (B unit) with ethylene content  
 30-50% and Mw 300,000-500,000, (b) 5-59% I with MFR (230.degree., 2.16 kg)  
 1-40 g/10 min, composed of 70-95% A unit with MFR 1-100 g/10 min and B

unit with MFR (230.degree., 2.16 kg) 1-40 g/10 min, (c) 3-108 HDPE with MFR (190.degree., 2.16kg ) 5-10 g/10 min and d. .gtoreq.0.950 g/cm<sup>3</sup>, (d) 0-128 ethylene-1-butene copolymer and/or ethylene-1-octene copolymer (EOR) with MFR (230.degree., 2.16 kg) 1-10 g/10 min, (e) 15-25% talc, where a + b + c + d + e = 100 parts, (f) 0.1-2 parts **hindered** amine compds. having 1,2,2,6,6-pentamethyl-4-piperidyl group in the mol., and (g) 0.1-2 parts fatty acid metal salts represented by (RCO<sub>2</sub>)<sub>n</sub>X (R = monovalent aliph. hydrocarbyl with mol. wt. 290-500, X = **Zn**, **Mg**, **Ca**, **Li**; n = 1, 2). The compns. are esp. useful for instrument panels of automobiles. Thus, a compn. comprised 45 parts I (MFR 30 g/10 min, A unit MFR 110 g/10 min, A unit IPF 0.98, B unit content 25%, ethylene content in B unit 37%, and Mw of B unit 370,000), 23 parts I (MFR 30, A unit MFR 50 g/10 min, B unit content 9%), 6 parts HDPE (MFR 7 g/10 min, d. 0.951 g/cm<sup>3</sup>), 6 parts EOR (MFR 2.2 g/10 min, d. 0. 862 g/cm<sup>3</sup>), 20 parts talc (LMS 200), 0.2 part tetrakis(1,2,2,6,6-pentamethyl-4-piperidyl)-1,2,3,4-butane tetracarboxylate, and 0.4 part **Zn** behenate. The compn. was kneaded at 220.degree. in the presence of Irganox 1010 (thermal stabilizer) and subsequently injection-molded to give test pieces having high mech. strengths, suppressed gloss, and antiscratching property.

ST propylene polymer compn automobile interior; ethylene propylene block copolymer compn automobile interior; HDPE blend polypropylene compn automobile interior

IT Amines, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hindered, 1,2,2,6,6-pentamethyl-4-piperidyl-, weathering stabilizer; propylene polymer-based compns. for automobile interior parts)

IT Automobiles

(interior parts; propylene polymer-based compns. for automobile interior parts)

IT Fatty acids, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(metal salts, dispersing agents for talc; propylene polymer-based compns. for automobile interior parts)

IT Polymer blends

RL: TEM (Technical or engineered material use); USES (Uses)  
(propylene polymer-based compns. for automobile interior parts)

IT 16529-65-0, Zinc behenate

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(dispersing agents for talc; propylene polymer-based compns. for automobile interior parts)

IT 9002-88-4, Polyethylene

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(high-d.; propylene polymer-based compns. for automobile interior parts)

IT 14807-96-6, LMS 200, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(propylene polymer-based compns. for automobile interior parts)

IT 25087-34-7, 1-Butene-ethylene copolymer 26221-73-8, Ethylene-1-octene copolymer 106565-43-9, Ethylene-propylene block copolymer

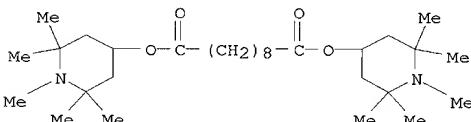
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(propylene polymer-based compns. for automobile interior parts)

IT 41556-26-7, Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate  
 91788-83-9, Tetrakis(1,2,2,6,6-pentamethyl-4-piperidyl)-1,2,3,4-butane tetracarboxylate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (weathering stabilizer; propylene polymer-based compns. for automobile interior parts)

IT 41556-26-7, Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate  
 91788-83-9, Tetrakis(1,2,2,6,6-pentamethyl-4-piperidyl)-1,2,3,4-butane tetracarboxylate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (weathering stabilizer; propylene polymer-based compns. for automobile interior parts)

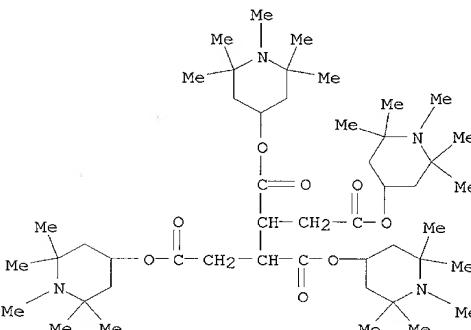
RN 41556-26-7 HCPLUS

CN Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 91788-83-9 HCPLUS

CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



L61 ANSWER 3 OF 14 HCPLUS COPYRIGHT 2003 ACS on STN  
 AN 2002:857801 HCPLUS

DN 137:326088

TI Composition comprising polypropylene prepared using a metallocene catalyst

and stabilized by hindered amines  
 IN Gugumus, Francois; Lelli, Nicola  
 PA Ciba Specialty Chemicals Holding Inc., Switz.  
 SO Fr. Demande, 73 pp.  
 CODEN: FRXXBL  
 DT Patent  
 LA French  
 IC ICM C08K005-3492  
 ICS C08K005-3435; C08L023-10  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2815353	A1	20020419	FR 2001-13247	20011015
	US 2002077394	A1	20020620	US 2001-973425	20011009
	GB 2370276	A1	20020626	GB 2001-24377	20011011
	GB 2370276	B2	20021218		
	DE 10150793	A1	20020529	DE 2001-10150793	20011015
	NL 1019181	A1	20020418	NL 2001-1019181	20011016
	NL 1019181	C2	20020807		
	ES 2186577	A1	20030501	ES 2001-2281	20011016
	JP 2002128971	A2	20020509	JP 2001-319532	20011017
PRAI	EP 2000-810957	A	20001017		

OS MARPAT 137:326088

AB The compn. comprises propylene homopolymer or copolymers obtained via metallocene catalysis and a mixt. of stabilizers including alkyl- and aryl- and triazine-contg. polyamines, hindered amines, and hindered piperidines; a pigment; a UV absorber; org. and inorg. Ca salts or CaO or Ca(OH)2; org. and inorg. Zn salts, ZnO, or Zn(OH)2; and org. and inorg. Mg salts, MgO, or Mg(OH)2. Polypropylene powder (100 parts) from metallocene catalysis was mixed. with 0.05 parts pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate), 0.10 parts tris(2,4-di-tert-butylphenyl)phosphite, 0.10 parts Ca stearate, N-(3-aminopropyl)-1,3-propanediamine, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate, and a UV absorber. The compn. was compressed between Al foil sheets at 260.degree. to form 0.5 mm thick films; the films were subjected to weathering tests to assess the efficacy of the stabilizer mixt.; the carbonyl IR absorption band of the films was stable up to 2600 h of exposure vs. 250 h for polypropylene without stabilizer mixt.

ST polypropylene metallocene prep'd compn stabilizer mixt amine; polyamine hindered amine piperidine stabilizer polypropylene; calcium magnesium zirconium salt amine stabilizer polypropylene

IT Polyamines

RL: MOA (Modifier or additive use); USES (Uses)  
 (hindered amine and triazine-contg.; stabilizer mixt. of polyamines and hindered amines and piperidines in metallocene-prepd. polypropylene compns.)

IT Amines, uses

RL: MOA (Modifier or additive use); USES (Uses)  
 (hindered; stabilizer mixt. of polyamines and hindered amines and piperidines in metallocene-prepd. polypropylene compns.)

IT UV stabilizers

(stabilizer mixt. of polyamines and hindered amines and piperidines in metallocene-prepd. polypropylene compns.)

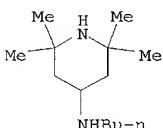
IT 56-18-8, N-(3-Aminopropyl)-1,3-propanediamine 1305-62-0, Calcium

hydroxide (Ca(OH)2), uses 1305-78-8, Calcium oxide, uses 1309-42-8,  
**Magnesium hydroxide (Mg(OH)2)** 1309-48-4,  
**Magnesium oxide (MgO)**, uses 1314-13-2, **Zinc oxide** (ZnO), uses 1592-23-0, Calcium stearate 6683-19-8, Pentaerythritol tetrakis(3-(3,5-di-*tert*-butyl-4-hydroxyphenyl)propionate) 20427-58-1,  
**Zinc hydroxide (Zn(OH)2)** 31570-04-4,  
Tris(2,4-di-*tert*-butylphenyl)phosphite **36177-92-1**,  
N-Butyl-2,2,6,6-tetramethyl-4-piperidineamine **52829-07-9**,  
Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate **71878-19-8**  
**72058-42-5**, **N,N'-Bis(2,2,6,6-tetramethyl-4-piperidyl)hexamethylenediamine-2-tert-octylamino-4,6-dichloro-s-triazine copolymer** **121859-42-5** **195300-79-9** **288098-11-3**  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizer mixt. of polyamines and **hindered amines** and piperidines in metallocene-prepd. polypropylene compns.)

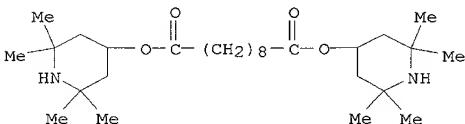
IT 9003-07-0, Polypropylene  
RL: POF (Polymer in formulation); USES (Uses)  
(stabilizer mixt. of polyamines and **hindered amines** and piperidines in metallocene-prepd. polypropylene compns.)

IT **36177-92-1**, **N-Butyl-2,2,6,6-tetramethyl-4-piperidineamine** **52829-07-9**, **Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate** **71878-19-8** **72058-42-5**, **N,N'-Bis(2,2,6,6-tetramethyl-4-piperidyl)hexamethylenediamine-2-tert-octylamino-4,6-dichloro-s-triazine copolymer** **121859-42-5** **195300-79-9** **288098-11-3**  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizer mixt. of polyamines and **hindered amines** and piperidines in metallocene-prepd. polypropylene compns.)

RN **36177-92-1** HCPLUS  
CN **4-Piperidinamine, N-butyl-2,2,6,6-tetramethyl-** (9CI) (CA INDEX NAME)

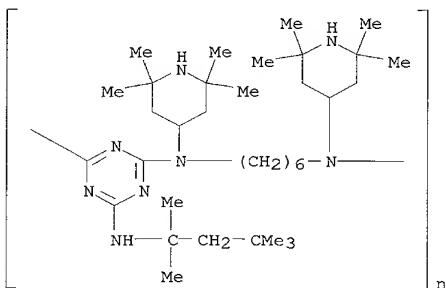


RN 52829-07-9 HCPLUS  
CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 71878-19-8 HCPLUS

CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyil][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



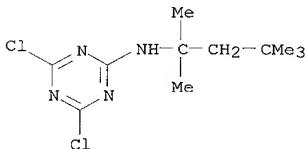
RN 72058-42-5 HCAPLUS

CN 1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-, polymer with 4,6-dichloro-N-(1,1,3,3-tetramethylbutyl)-1,3,5-triazin-2-amine (9CI) (CA INDEX NAME)

CM 1

CRN 72058-41-4

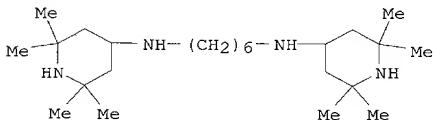
CMF C11 H18 C12 N4



CM 2

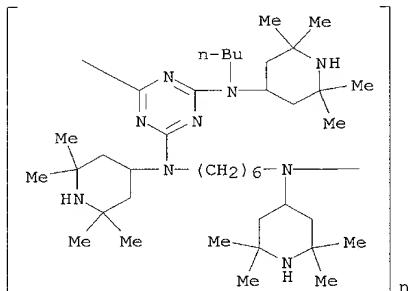
CRN 61260-55-7

CMF C24 H50 N4



RN 121859-42-5 HCAPLUS

CN Poly[6-[butyl(2,2,6,6-tetramethyl-4-piperidinyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediy[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



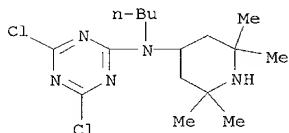
RN 195300-79-9 HCAPLUS

CN 1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-, polymer with N-butyl-4,6-dichloro-N-(2,2,6,6-tetramethyl-4-piperidinyl)-1,3,5-triazin-2-amine (9CI) (CA INDEX NAME)

CM 1

CRN 63812-63-5

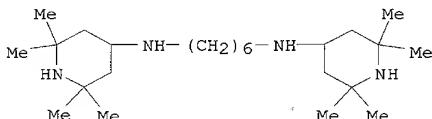
CMF C16 H27 Cl2 N5



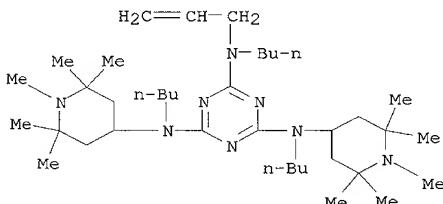
CM 2

CRN 61260-55-7

CMF C24 H50 N4



RN 288098-11-3 HCAPLUS  
 CN 1,3,5-Triazine-2,4,6-triamine, N,N',N'''-tributyl-N,N'-bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-N'''-2-propenyl- (9CI) (CA INDEX NAME)



L61 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2002:534135 HCAPLUS  
 DN 137:63950  
 TI Polymer-stabilizing mixtures containing hindered amines and compounds of zinc or magnesium  
 IN Guumus, Francois  
 PA Ciba Specialty Chemicals Holding Inc., Switz.  
 SO Fr. Demande, 137 pp.

*applicant*

CODEN: FRXXBL  
 DT Patent  
 LA French  
 IC ICM C08K005-098  
 ICS C08K005-3435; C08K005-3492; C08K005-353; C08K003-22; C08L023-12  
 CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2811672	A1	20020118	FR 2001-9354	20010713
	FR 2811672	B1	20030801		
	US 2002077393	A1	20020620	US 2001-899438	20010705
	GB 2367298	A1	20020403	GB 2001-16531	20010706
	GB 2367298	B2	20030212		
	DE 10133535	A1	20020502	DE 2001-10133535	20010711
	NL 1018546	A1	20020115	NL 2001-1018546	20010713
	NL 1018546	C2	20020529		
	ES 2167282	A1	20030516	ES 2001-1646	20010713
	BE 1014298	A3	20030805	BE 2001-481	20010713
	BR 2001002893	A	20020226	BR 2001-2893	20010716
	JP 2002097467	A2	20020402	JP 2001-215771	20010716

PRAI EP 2000-810621 A 20000714

OS MARPAT 137:63950

AB Mixts. contg. 2 hindered amines and  
 .gtoreq.1 of Zn (in)org. salt, ZnO, Zn(OH)2,  
 Mg (in)org. salt, MgO, and Mg(OH)2 are useful for  
 stabilizing polyolefins against heat, light, and oxidn.  
 ST heat stabilizer hindered amine zinc compd  
 mixt polyolefin; antioxidant hindered amine  
 zinc compd mixt polyolefin; light stabilizer  
 hindered amine magnesium compd mixt

polyolefin  
IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(hindered; polyolefin-stabilizing mixts. contg. hindered amines and  
compds. of **zinc or magnesium**)  
IT Antioxidants  
Heat stabilizers  
Heat-resistant materials  
Light stabilizers  
Light-resistant materials  
(polyolefin-stabilizing mixts. contg. hindered amines and compds. of  
**zinc or magnesium**)  
IT Polyolefins  
RL: POF (Polymer in formulation); USES (Uses)  
(polyolefin-stabilizing mixts. contg. hindered amines and compds. of  
**zinc or magnesium**)  
IT Hydroxides (inorganic)  
Oxides (inorganic), uses  
Salts, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(**zinc or magnesium**; polyolefin-stabilizing mixts.  
contg. hindered amines and compds. of **zinc or  
magnesium**)  
IT 9002-88-4, Polyethylene  
RL: POF (Polymer in formulation); USES (Uses)  
(high-d.; polyolefin-stabilizing mixts. contg. hindered amines and  
compds. of **zinc or magnesium**)  
IT 557-04-0, Magnesium stearate 557-05-1,  
Zinc stearate 11097-59-9, DHT 4A 70198-29-7,  
Tinuin 622 71878-19-8, Chimassorb 944 106990-43-6,  
Chimassorb 119 178261-60-4 178261-61-5  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyolefin-stabilizing mixts. contg. hindered amines and compds. of  
**zinc or magnesium**)  
IT 9003-07-0, Polypropylene 9010-79-1, Ethylene-propylene copolymer  
RL: POF (Polymer in formulation); USES (Uses)  
(polyolefin-stabilizing mixts. contg. hindered amines and compds. of  
**zinc or magnesium**)  
IT 557-04-0, Magnesium stearate 557-05-1,  
Zinc stearate 11097-59-9, DHT 4A 70198-29-7,  
Tinuin 622 71878-19-8, Chimassorb 944 106990-43-6,  
Chimassorb 119 178261-60-4  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyolefin-stabilizing mixts. contg. hindered amines and compds. of  
**zinc or magnesium**)  
RN 557-04-0 HCAPLUS  
CN Octadecanoic acid, magnesium salt (9CI) (CA INDEX NAME)

HO<sub>2</sub>C—(CH<sub>2</sub>)<sub>16</sub>—Me

●1/2 Mg

RN 557-05-1 HCAPLUS  
CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

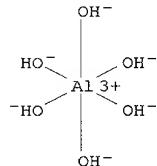
HO<sub>2</sub>C—(CH<sub>2</sub>)<sub>16</sub>—Me

● 1/2 Zn

RN 11097-59-9 HCPLUS  
CN Aluminate (Al(OH)63-), (OC-6-11)-, magnesium carbonate hydroxide (2:6:1:4)  
(9CI) (CA INDEX NAME)

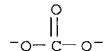
CM 1

CRN 18893-33-9  
CMF Al H6 O6  
CCI CCS



CM 2

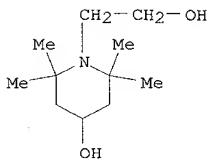
CRN 3812-32-6  
CMF C O3



RN 70198-29-7 HCPLUS  
CN Butanedioic acid, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol (9CI) (CA INDEX NAME)

CM 1

CRN 52722-86-8  
CMF C11 H23 N O2

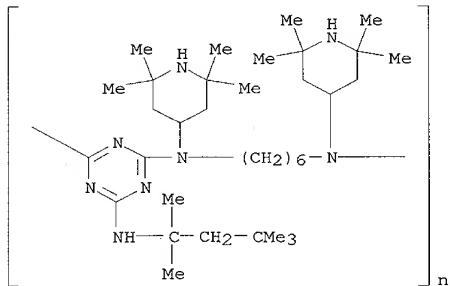


CM 2

CRN 110-15-6  
CMF C4 H6 O4

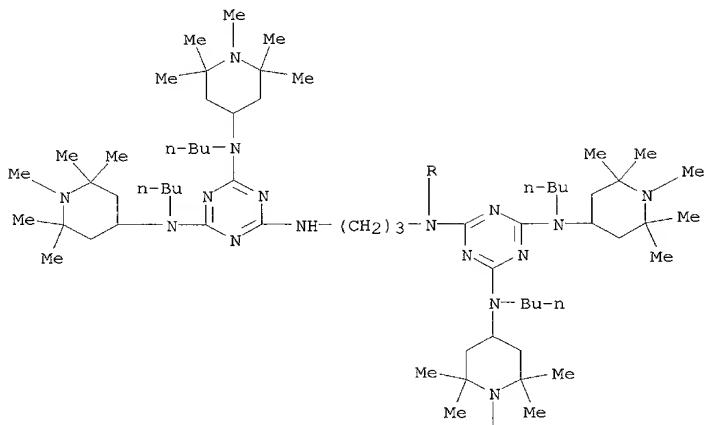
HO<sub>2</sub>C-CH<sub>2</sub>-CH<sub>2</sub>-CO<sub>2</sub>H

RN 71878-19-8 HCPLUS  
CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



RN 106990-43-6 HCPLUS  
CN 1,3,5-Triazine-2,4,6-triamine, N,N''-1,2-ethanediylbis[N-[3-[[4,6-bis[butyl(1,2,2,6,6-pentamethyl-4-piperidinyl)amino]-1,3,5-triazin-2-yl]amino]propyl]-N',N''-dibutyl-N',N''-bis(1,2,2,6,6-pentamethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

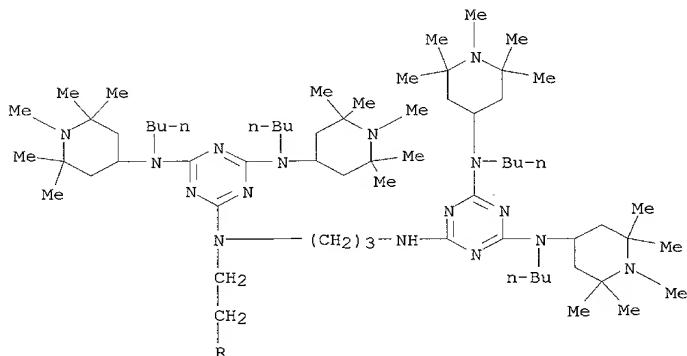
PAGE 1-A



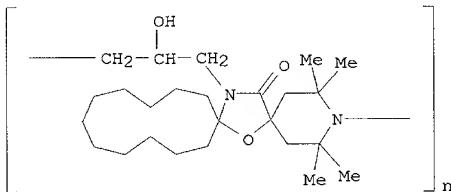
PAGE 2-A



PAGE 3-A



RN 178261-60-4 HCAPLUS  
 CN Poly[(2,2,4,4-tetramethyl-21-oxo-7-oxa-3,20-diazadispiro[5.1.11.2]heneicosane-3,20-diyl) (2-hydroxy-1,3-propanediyl)] (9CI) (CA INDEX NAME)



L61 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2001:800948 HCAPLUS  
 DN 136:86438  
 TI New generation of long-term stabilizers for polyolefins  
 AU Cangelosi, Frank; Davis, Leonard; Samuels, Sari-Beth  
 CS Cytec Industries, Inc., Stamford, CT, 06904-0060, USA  
 SO Journal of Vinyl & Additive Technology (2001), 7(3), 123-133  
 CODEN: JVATF4; ISSN: 1083-5601  
 PB Society of Plastics Engineers  
 DT Journal  
 LA English  
 CC 37-2 (Plastics Manufacture and Processing)  
 AB The benefits of light stabilizers, Cyasorb UV-4611 and Cyasorb UV-6435, for polyethylenes (HDPE and LLDPE and LLDPE hexene copolymer), polypropylene (PP), and other resins are outlined. Tensile test data demonstrate that when used with a base sensitive antioxidant package, UV-4611 will exhibit superior discoloration resistance to either UV-3346 or UV-944 in LLDPE. For HDPE samples, after 8000 h of exposure, the sample contg. UV-4611 still retained 74% of its initial elongation; while the sample contg. UV-783 failed after 3120 h. The PP formulation contg. UV-6435 exhibited significantly higher tensile strength retention than the formulation contg. UV-3346; after actual Florida exposure for four years, samples contg. UV-6435 outperformed samples contg. WV-3346, UV-944 and UV-783. Color and gloss measurements of all samples also demonstrate superior performance of the light stabilizers.  
 ST hindered amine mixt triazine UV stabilizer  
 polyolefin; antioxidant combination UV stabilizer polyolefin tensile testing  
 IT Amines, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (hindered; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)  
 IT Antioxidants  
 Elongation, mechanical  
 Luster  
 Tensile strength  
 UV stabilizers  
 (long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)  
 IT Linear low density polyethylenes

RL: PRP (Properties)  
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 6683-19-8, Cyanox 2110  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(Cyanox 2110, mixts. with UV-1164, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 31570-04-4, Tris(2,4-di-tert-butylphenyl) phosphite  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(Cyanox 2704, mixts. with UV-1164, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 387337-51-1, Cyasorb UV 4611 387337-52-2, Cyasorb UV 6435  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(UV stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 40601-76-1, Tris(4-tert-butyl-2,6-dimethyl-3-hydroxybenzyl) isocyanurate  
220246-19-5, Cyanox 2777  
RL: MOA (Modifier or additive use); USES (Uses)  
(antioxidant; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 88117-78-6, Ethene-hexene copolymer  
RL: PRP (Properties)  
(linear low-d. and high-d.; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 70198-29-7, Tinuvin 622 71878-19-8, Chimassorb 944  
195300-91-5, Chimassorb 2020 205132-52-1, Tinuvin 783  
RL: MOA (Modifier or additive use); USES (Uses)  
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 557-05-1, Zinc stearate  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 9003-07-0, Polypropylene  
RL: PRP (Properties)  
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 90751-07-8, Cyasorb UV-3346  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(mixts. with UV-1164 and UV-3529, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 145849-89-4, Cyasorb UV-3529  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(mixts. with UV-1164, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

IT 2725-22-6, Cyasorb UV 1164  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(mixts. with UV-3346, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Bauer, D; Polym Degrad Stab 1990, V28(2), P115 HCAPLUS  
(2) Billingham, N; Polym Degrad Stab 1991, V31(1), P23 HCAPLUS  
(3) Cytec Industries; unpublished work  
(4) Gijsman, P; Polym Degrad Stab 1993, V39, P225 HCAPLUS  
(5) Gugumus, F; Oxidation Inhibition of Organic 1990, V2  
(6) Gugumus, F; Polym Degrad Stab 1991, V34, P205 HCAPLUS

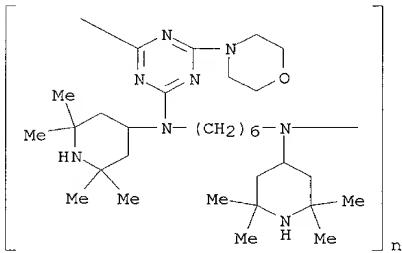
- (7) Klemchuk, P; Makromol Chem Macromol Symp 1989, V28, P117 HCPLUS
- (8) Klemchuk, P; Polym Degrad Stab 1990, V27, P65 HCPLUS
- (9) Kurumada, T; J Polym Sci Polym Chem Ed 1984, V22(1), P277 HCPLUS
- (10) Malik, J; Polym Degrad Stab 1992, V35(2), P125 HCPLUS
- (11) Malik, J; Polym Degrad Stab 1992, V35(1), P61 HCPLUS
- (12) Malik, J; Polym Degrad Stab 1995, V47(1), P1 HCPLUS
- (13) Neri, C; Stabilization of Polymers by Hindered Amines International Conference on the Advances in Stabilization and Degradation of Polymers 1991
- (14) Samuels, S; Polyolefins XI, International Conference 1999, P521 HCPLUS
- (15) Sedlar, J; Chapter 1 in Oxidation Inhibition of Organic Materials 1990, V2 IT 387337-51-1, Cyasorb UV 4611 387337-52-2, Cyasorb UV 6435
- RL: MOA (Modifir or additive use); PRP (Properties); USES (Uses)  
(UV stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- RN 387337-51-1 HCPLUS
- CN Phenol, 2-[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]-5-(octyloxy)-, mixt. with poly[16-(4-morpholinyl)-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyi[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)

CM 1

CRN 90751-07-8

CMF (C31 H56 N8 O)n

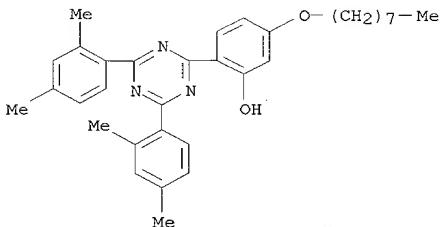
CCI PMS



CM 2

CRN 2725-22-6

CMF C33 H39 N3 O2



RN 387337-52-2 HCAPLUS

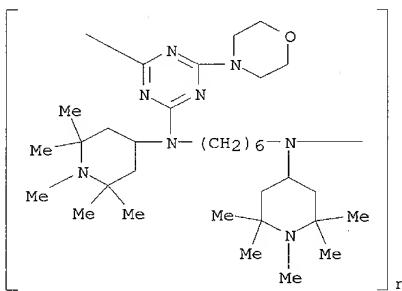
CN Phenol, 2-[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]-5-(octyloxy)-, mixt. with poly[6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl][(1,2,2,6,6-pentamethyl-4-piperidinyl)imino]-1,6-hexanediy[(1,2,2,6,6-pentamethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)

CM 1

CRN 145849-89-4

CMF (C33 H60 N8 O)n

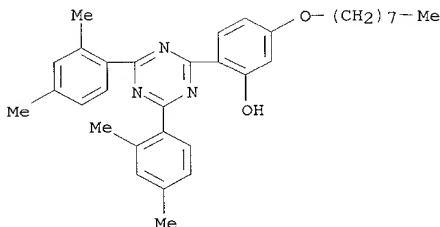
CCI PMS



CM 2

CRN 2725-22-6

CMF C33 H39 N3 O2



IT 70198-29-7, Tinuvin 622 71878-19-8, Chimassorb 944  
195300-91-5, Chimassorb 2020

RL: MOA (Modifier or additive use); USES (Uses)  
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

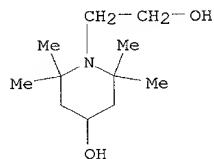
RN 70198-29-7 HCAPLUS

CN Butanedioic acid, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidinethanol (9CI) (CA INDEX NAME)

CM 1

CRN 52722-86-8

CMF C11 H23 N O2



CM 2

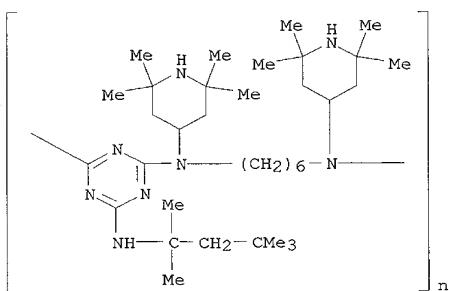
CRN 110-15-6

CMF C4 H6 O4

HO2C-CH2-CH2-CO2H

RN 71878-19-8 HCAPLUS

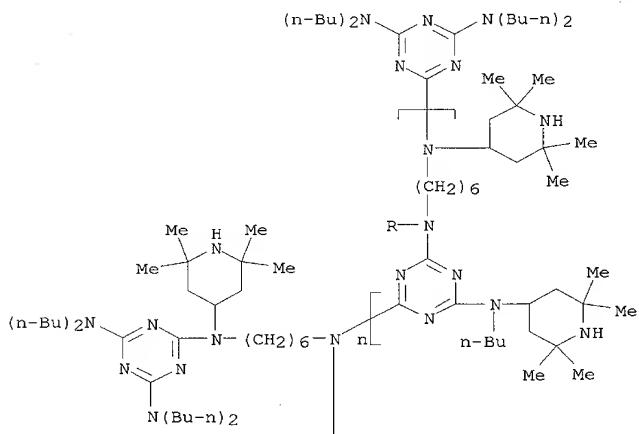
CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diy][[(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediy[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



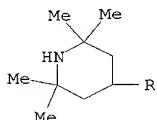
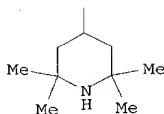
RN 195300-91-5 HCPLUS

CN Poly[{6-[butyl(2,2,6,6-tetramethyl-4-piperidinyl)amino]-1,3,5-triazine-2,4-diyyl}{(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]}, .alpha.-[{6-[4,6-bis(dibutylamino)-1,3,5-triazin-2-yl](2,2,6,6-tetramethyl-4-piperidinyl)amino]hexyl}(2,2,6,6-tetramethyl-4-piperidinyl)amino]-.omega.-[4,6-bis(dibutylamino)-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IT 557-05-1, Zinc stearate

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

RN 557-05-1 HCAPLUS

CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

 $\text{HO}_2\text{C}-(\text{CH}_2)_{16}-\text{Me}$ 

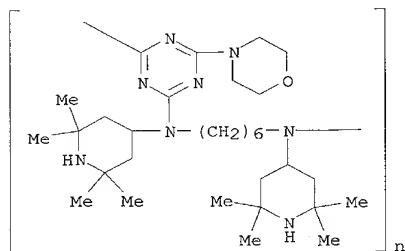
●1/2 Zn

IT 90751-07-8, Cyasorb UV-3346

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(mixts. with UV-1164 and UV-3529, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

RN 90751-07-8 HCAPLUS

CN Poly[[6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediy[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)

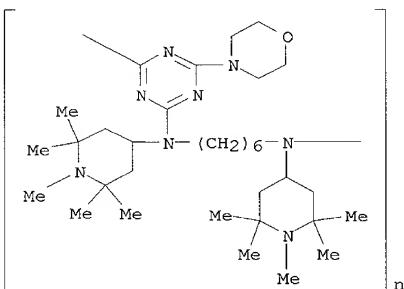


IT 145849-89-4, Cyasorb UV-3529

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(mixts. with UV-1164, stabilizer; long-term UV stabilizers based on  
mixts. of hindered amines and triazines for polyolefins)

RN 145849-89-4 HCPLUS

CN Poly{[6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl]{(1,2,2,6,6-pentamethyl-4-piperidinyl)imino}-1,6-hexanediyl[(1,2,2,6,6-pentamethyl-4-piperidinyl)imino]} (9CI) (CA INDEX NAME)



L61 ANSWER 6 OF 14 HCPLUS COPYRIGHT 2003 ACS on STN

AN 2000:19370 HCPLUS

DN 132:50741

TI Propylene polymer compositions with good urine discoloration resistance and toilet urinals using them

IN Nawata, Teruhiko; Matsumoto, Yoshifumi

PA Tokuyama Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L023-10

ICS A47K013-30; C08K003-22; C08K003-30; C08K005-34

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2000001580 A2 20000107 JP 1998-167584 19980615

PRAI JP 1998-167584 19980615

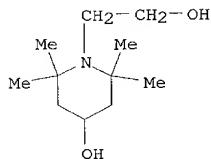
AB Title compns. contain propylene polymers 100, .gtoreq.1 white pigments selected from TiO<sub>2</sub>, ZnO, and ZnS 0.2-10, hindered amines with mol. wt. .gtoreq.1500 0.02-2, and phenol antioxidants .ltoreq.0.02 part. Thus, isotactic polypropylene, TiO<sub>2</sub>, and Chimassorb 944FL (hindered amine with mol. wt. 3600) were melt kneaded, pelletized, and injection molded to give a test piece showing good heat and weather resistance.

ST propylene polymer urine discoloration resistance urinal; hindered amine antioxidant propylene polymer toilet urinal

- IT Polyesters, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(antioxidants; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT Antioxidants  
(hindered amines; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(hindered, antioxidants; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT Discoloration prevention  
Heat-resistant materials  
(propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT Toilets  
(urinals; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT Pigments, nonbiological  
(white; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT 6683-19-8  
RL: MOA (Modifier or additive use); USES (Uses)  
(antioxidants, content-controlled; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT 65447-77-0, Dimethyl succinate-1-(2-hydroxyethyl)-4-hydroxy-2,2,6,6-tetramethylpiperidine copolymer 71878-19-8, Chimassorb 944FL  
RL: MOA (Modifier or additive use); USES (Uses)  
(antioxidants; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT 25085-53-4, Isotactic polypropylene  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT 1314-13-2, Zinc oxide, uses 1314-98-3, Sachtolith HD-S, uses 13463-67-7, Titanium oxide, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(white pigments; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- IT 65447-77-0, Dimethyl succinate-1-(2-hydroxyethyl)-4-hydroxy-2,2,6,6-tetramethylpiperidine copolymer 71878-19-8, Chimassorb 944FL  
RL: MOA (Modifier or additive use); USES (Uses)  
(antioxidants; propylene polymer compns. with good urine discoloration resistance for toilet urinals)
- RN 65447-77-0 HCAPLUS
- CN Butanedioic acid, dimethyl ester, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol (9CI) (CA INDEX NAME)

CM 1

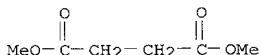
CRN 52722-86-8  
CMF C11 H23 N O2



CM 2

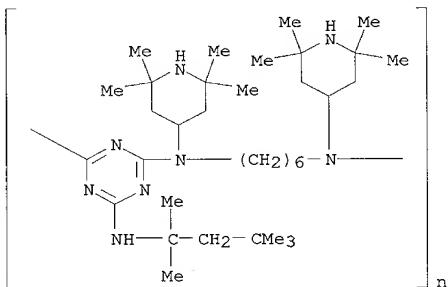
CRN 106-65-0

CMF C6 H10 O4



RN 71878-19-8 HCPLUS

CN Poly[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyi[(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyi[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



L61 ANSWER 7 OF 14 HCPLUS COPYRIGHT 2003 ACS on STN

AN 1999:413026 HCPLUS

DN 131:74490

TI Stabilizing **mixtures** containing **hindered amines** and combinations of 2 salts of calcium, magnesium and(or) zinc for polyolefins

IN Gugumus, Francois

PA Ciba-Geigy A.-G., Switz.

SO Ger. Offen., 50 pp.

CODEN: GWXXBX

DT Patent

LA German  
 IC ICM C08K013-02  
 ICS C08K005-3432; C08K005-3462; C08L023-02; C08J003-20  
 CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19859194	A1	19990624	DE 1998-19859194	19981221
	US 2002016390	A1	20020207	US 1998-211198	19981214
	GB 2332677	A1	19990630	GB 1998-27565	19981216
	GB 2332677	B2	20010718		
	GB 2347427	A1	20000906	GB 2000-14233	19981216
	GB 2347427	B2	20010718		
	ES 2154577	A1	20010401	ES 1998-2651	19981221
	ES 2154577	B1	20011201		
	FR 2772774	A1	19990625	FR 1998-16203	19981222
	JP 11255956	A2	19990921	JP 1998-364648	19981222
	IT 1304794	B1	20010329	IT 1998-MI2777	19981222
	NL 1010891	A1	19990624	NL 1998-1010891	19981223
	NL 1010891	C2	19990802		
	BE 1012828	A5	20010403	BE 1998-928	19981223
	US 2003013785	A1	20030116	US 2002-164812	20020607
PRAI	EP 1997-811019	A	19971223		
	US 1998-211198	A1	19981214		
	GB 1998-27565	A3	19981216		
AB	Mixts. for stabilizing of polyolefins against degrdn. by heat, light and o contain (A) hindered amines, (B) (in)org. salts of Ca, and (C) (in)org. salts of Zn or Mg, such that when component (B) is Ca stearate, then component (C) is Mg carbonate hydroxide, Zn carbonate hydroxide (I), or dolomite. A typical light-stabilized plate contained 100 parts polypropylene, 0.05 parts pentaerythritol tetrakis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate], 0.05 parts tris(2,4-di-tert-butylphenyl) phosphite, 0.1% Tinuvin 622, 0.05% CaO, and 0.05% I.				
ST	hindered amine calcium zinc magnesium salt stabilizer polyolefin; polypropylene hindered amine calcium zinc salt light stabilizer				
IT	Amines, uses RL: MOA (Modifier or additive use); USES (Uses) (hindered; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Polyesters, uses RL: MOA (Modifier or additive use); USES (Uses) (polyamine-; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Amines, uses RL: MOA (Modifier or additive use); USES (Uses) (polyamines, nonpolymeric; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Polyamines RL: MOA (Modifier or additive use); USES (Uses) (polyester-; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Antioxidants				

Heat stabilizers  
Light stabilizers  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts  
of **magnesium** and(or) **zinc** for polyolefins)

IT Polyamines  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts  
of **magnesium** and(or) **zinc** for polyolefins)

IT Polyolefins  
RL: POF (Polymer in formulation); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts  
of **magnesium** and(or) **zinc** for polyolefins)

IT Polysiloxanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(tetramethylpiperidinyloxypropyl-contg.; stabilizing mixts. contg.  
hindered amines and combinations of 2 salts of **magnesium**  
and(or) **zinc** for polyolefins)

IT 130277-45-1, Good-rite UV 3159  
RL: MOA (Modifier or additive use); USES (Uses)  
(Good-rite UV 3159; stabilizing mixts. contg. hindered amines and  
combinations of 2 salts of **magnesium** and(or) **zinc**  
for polyolefins)

IT 237081-56-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(Hostavin N 30; stabilizing mixts. contg. hindered amines and  
combinations of 2 salts of **magnesium** and(or) **zinc**  
for polyolefins)

IT 64338-16-5  
RL: MOA (Modifier or additive use); USES (Uses)  
(Hostavin N20; stabilizing mixts. contg. hindered amines and  
combinations of 2 salts of **magnesium** and(or) **zinc**  
for polyolefins)

IT 79720-19-7  
RL: MOA (Modifier or additive use); USES (Uses)  
(UV absorb HA 88; stabilizing mixts. contg. hindered amines and  
combinations of 2 salts of **magnesium** and(or) **zinc**  
for polyolefins)

IT 70198-29-7, Tinuvin 622  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts  
of calcium, **magnesium** and(or) **zinc** for polyolefins)

IT 9003-07-0, Polypropylene  
RL: POF (Polymer in formulation); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts  
of calcium, **magnesium** and(or) **zinc** for polyolefins)

IT 142-72-3, **Magnesium acetate** 557-04-0,  
**Magnesium stearate** 557-05-1, **Zinc stearate**  
557-34-6, **Zinc acetate** 814-80-2, **Calcium lactate** 1305-62-0,  
**Calcium hydroxide**, uses 1305-78-8, **Calcium oxide**, uses 1309-42-8,  
**Magnesium hydroxide** 1309-48-4, **Magnesium oxide**, uses  
1314-13-2, **Zinc oxide**, uses 1592-23-0, **Calcium stearate**  
2452-01-9, **Zinc laurate** 4040-48-6, **Magnesium laurate**  
4508-49-0, **Calcium stearoyllactate** 11097-59-9, **DHT-4A**  
12125-28-9, **Magnesium carbonate hydroxide** 14024-56-7,  
**Magnesium acetylacetone** 14024-63-6, **Zinc acetylacetone** 16389-88-1, **Microdol Super**, uses 20427-58-1,  
**Zinc hydroxide** 36177-92-1D, **N-Butyl-2,2,6,6-tetramethyl-4-piperidinamine**, reaction products with **cyanuric chloride**-

ethanediylbis(propanediamine) copolymer **41556-26-7**, Tinuvin 765  
52829-07-9, Tinuvin 770 **64022-61-3**, Mark LA 57  
**71878-19-8**, Chimassorb 944 **91788-83-9**, Mark LA 52  
96204-36-3, Good-rite 3150 **147783-69-5**, Sanduvor PR 31  
150607-22-0, **Zinc** carbonate hydroxide **164648-93-5**,  
Uvasil 299 **174587-71-4D**, 1,3-Propanediamine, N,N'-1,2-ethanediylbis-,  
polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products with  
butyltetramethylpiperidinamine  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts  
of **magnesium** and(or) **zinc** for polyolefins)

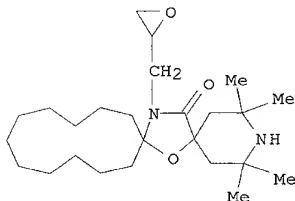
IT **9002-88-4**, Polyethylene  
RL: POF (Polymer in formulation); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts  
of **magnesium** and(or) **zinc** for polyolefins)

IT **237081-56-0**  
RL: MOA (Modifier or additive use); USES (Uses)  
(Hostavin N 30; stabilizing mixts. contg. hindered amines and  
combinations of 2 salts of **magnesium** and(or) **zinc**  
for polyolefins)

RN **237081-56-0** HCAPLUS  
CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-20-  
(oxiranylmethyl)-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX  
NAME)

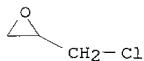
CM 1

CRN 78276-66-1  
CMF C25 H44 N2 O3



CM 2

CRN 106-89-8  
CMF C3 H5 Cl O

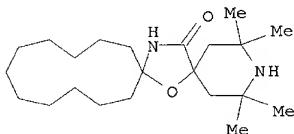


IT **64338-16-5**  
RL: MOA (Modifier or additive use); USES (Uses)

(Hostavin N20; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

RN 64338-16-5 HCPLUS

CN 7-Oxa-3,20-diaza-dispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl- (9CI) (CA INDEX NAME)



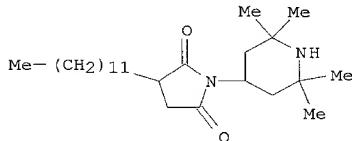
IT 79720-19-7

RL: MOA (Modifier or additive use); USES (Uses)

(UV absorb HA 88; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

RN 79720-19-7 HCPLUS

CN 2,5-Pyrrolidinedione, 3-dodecyl-1-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



IT 70198-29-7, Tinuvin 622

RL: MOA (Modifier or additive use); USES (Uses)

(stabilizing mixts. contg. hindered amines and combinations of 2 salts of **calcium**, **magnesium** and(or) **zinc** for polyolefins)

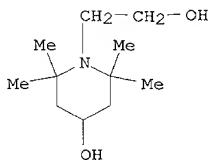
RN 70198-29-7 HCPLUS

CN Butanedioic acid, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol (9CI) (CA INDEX NAME)

CM 1

CRN 52722-86-8

CMF C11 H23 N O2



CM 2

CRN 110-15-6  
CMF C4 H6 O4

HO2C-CH2-CH2-CO2H

IT 557-04-0, **Magnesium stearate 557-05-1**,  
**Zinc stearate 11097-59-9**, DHT-4A 36177-92-1D,  
 N-Butyl-2,2,6,6-tetramethyl-4-piperidinamine, reaction products with  
 cyanuric chloride-ethanediylbis(propanediamine) copolymer  
 41556-26-7, Tinuvin 765 52829-07-9, Tinuvin 770  
 64022-61-3, Mark LA 57 71878-19-8, Chimassorb 944  
 91788-83-9, Mark LA 52 147783-69-5, Sanduvor PR 31  
 164648-93-5, Uvasil 299  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts  
 of **magnesium** and(or) **zinc** for polyolefins)  
 RN 557-04-0 HCPLUS  
 CN Octadecanoic acid, magnesium salt (9CI) (CA INDEX NAME)

HO2C-(CH<sub>2</sub>)<sub>16</sub>-Me

● 1/2 Mg

RN 557-05-1 HCPLUS  
 CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

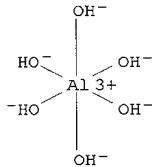
HO2C-(CH<sub>2</sub>)<sub>16</sub>-Me

● 1/2 Zn

RN 11097-59-9 HCPLUS  
 CN Aluminate (Al(OH)63-), (OC-6-11)-, magnesium carbonate hydroxide (2:6:1:4)  
 (9CI) (CA INDEX NAME)

CM 1

CRN 18893-33-9  
CMF Al H6 O6  
CCI CCS

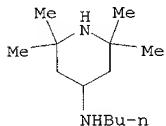


CM 2

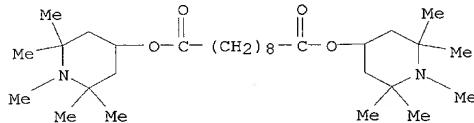
CRN 3812-32-6  
CMF C O3



RN 36177-92-1 HCAPLUS  
CN 4-Piperidinamine, N-butyl-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



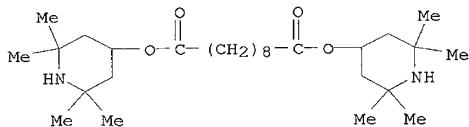
RN 41556-26-7 HCAPLUS  
CN Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 52829-07-9 HCAPLUS

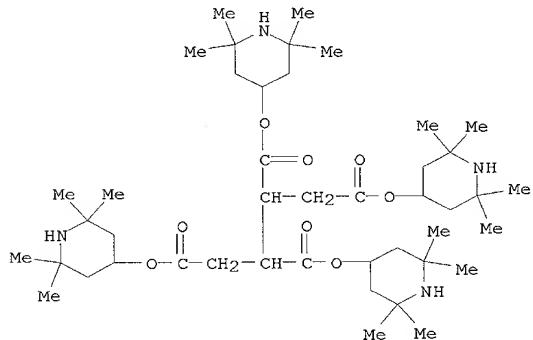
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



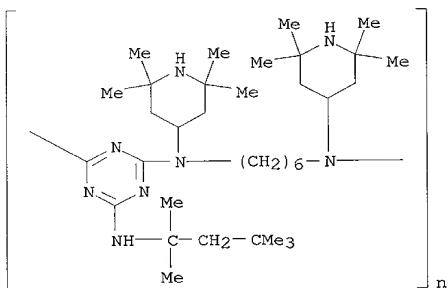
RN 64022-61-3 HCAPLUS

CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



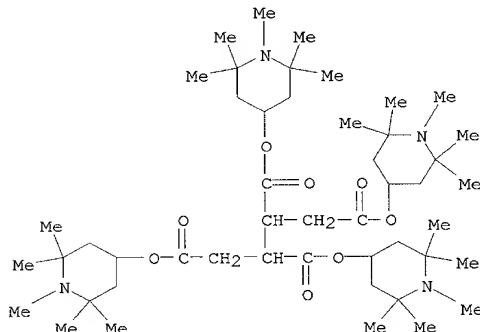
RN 71878-19-8 HCAPLUS

CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



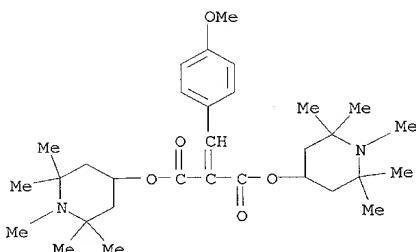
RN 91788-83-9 HCAPLUS

CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)

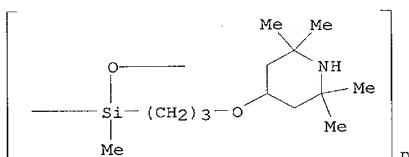


RN 147783-69-5 HCAPLUS

CN Propanedioic acid, [(4-methoxyphenyl)methylene]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 164648-93-5 HCPLUS  
 CN Poly[oxy[methyl[3-[(2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]silylene]  
 ] (9CI) (CA INDEX NAME)



L61 ANSWER 8 OF 14 HCPLUS COPYRIGHT 2003 ACS on STN  
 AN 1999:413024 HCPLUS

DN 131:88676

TI Stabilizing **mixtures** containing **hindered amines** and metal salts for polyolefins

IN Gugumus, Francois

PA Ciba-Geigy A.-G., Switz.

SO Ger. Offen., 74 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C09K015-30

ICS C08L023-02

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19859096	A1	19990624	DE 1998-19859096	19981221
	GB 2332678	A1	19990630	GB 1998-27567	19981216
	GB 2332678	B2	20000927		
	ES 2155364	A1	20010501	ES 1998-2650	19981221
	ES 2155364	B1	20020701		
	FR 2772773	A1	19990625	FR 1998-16204	19981222
	JP 11255957	A2	19990921	JP 1998-376316	19981222
	IT 1304793	B1	20010329	IT 1998-MI2776	19981222
	NL 1010890	A1	19990624	NL 1998-1010890	19981223

NL 1010890	C2	19990802		
BE 1012882	A5	20010508	BE 1998-927	19981223
US 2002013390	A1	20020131	US 2001-811960	20010319
US 2003013784	A1	20030116	US 2002-85221	20020228
PRAI EP 1997-811018	A	19971223		
US 1998-211197	B1	19981214		
US 2001-811960	B1	20010319		
OS MARPAT 131:88676				
AB	Mixts. for stabilizing of polyolefins against degrdn. by heat, light and O contain hindered amines and 2 compds. selected from (in)org. salts of Zn and Mg with the ratio of the 2 latter compds. being (1-10):(1-10), such that the latter 2 compds. are different than ZnO-Zn stearate and ZnO-hydrotalcite combinations. A typical light-stabilized plate contained 100 parts polypropylene, 0.05 parts pentaerythrityl tetrakis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate], 0.05 parts tris(2,4-di-tert-butylphenyl) phosphite, 0.1% Tinuvin 622, 0.1% Microdol Super (dolomite), and 0.05% Mg stearate.			
ST	hindered amine <b>zinc magnesium</b> salt stabilizer polyolefin; polypropylene hindered amine <b>magnesium</b> stearate dolomite light stabilizer			
IT	Fatty acids, uses RL: MOA (Modifier or additive use); USES (Uses) (C15-18, tetramethylpiperidinyl esters, Dastib 845; stabilizing mixts. contg. hindered amines and combinations of 2 salts of <b>magnesium</b> and(or) <b>zinc</b> for polyolefins)			
IT	Amines, uses RL: MOA (Modifier or additive use); USES (Uses) (hindered; stabilizing mixts. contg. hindered amines and combinations of 2 salts of <b>magnesium</b> and(or) <b>zinc</b> for polyolefins)			
IT	Polymers, uses Polyesters, uses RL: MOA (Modifier or additive use); USES (Uses) (polyamine-; stabilizing mixts. contg. hindered amines and combinations of 2 salts of <b>magnesium</b> and(or) <b>zinc</b> for polyolefins)			
IT	Amines, uses RL: MOA (Modifier or additive use); USES (Uses) (polyamines, nonpolymeric; stabilizing mixts. contg. hindered amines and combinations of 2 salts of <b>magnesium</b> and(or) <b>zinc</b> for polyolefins)			
IT	Polyethers, uses Polyethers, uses RL: MOA (Modifier or additive use); USES (Uses) (polyester-, hindered amine group-contg.; stabilizing mixts. contg. hindered amines and combinations of 2 salts of <b>magnesium</b> and(or) <b>zinc</b> for polyolefins)			
IT	Polyamines Polyamines RL: MOA (Modifier or additive use); USES (Uses) (polyester-; stabilizing mixts. contg. hindered amines and combinations of 2 salts of <b>magnesium</b> and(or) <b>zinc</b> for polyolefins)			
IT	Polyesters, uses Polyesters, uses RL: MOA (Modifier or additive use); USES (Uses) (polyether-, hindered amine group-contg.; stabilizing mixts. contg. hindered amines and combinations of 2 salts of <b>magnesium</b>			

and(or) **zinc** for polyolefins)

IT Antioxidants  
Heat stabilizers  
Light stabilizers  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT Polyamines  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT Polyolefins  
RL: POF (Polymer in formulation); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT Polysiloxanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(tetramethylpiperidinyloxypropyl-contg.; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT 96204-36-3  
RL: MOA (Modifier or additive use); USES (Uses)  
(Goodrite UV 3150; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT 106917-30-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(Hals Me S 95; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT 79720-19-7  
RL: MOA (Modifier or additive use); USES (Uses)  
(Hals S 95, Uvasorb HA 88; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT 78301-43-6  
RL: MOA (Modifier or additive use); USES (Uses)  
(Hostavin H 30; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT 64338-16-5  
RL: MOA (Modifier or additive use); USES (Uses)  
(Hostavin N20; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT 159102-09-7  
RL: MOA (Modifier or additive use); USES (Uses)  
(Lichtschutzstoff UV 31; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT 229966-35-2  
RL: MOA (Modifier or additive use); USES (Uses)  
(Luchem HAB 18; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

IT 109423-00-9  
RL: MOA (Modifier or additive use); USES (Uses)  
(Uvinul 4049; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc**)

for polyolefins)

IT 199237-39-3, Uvinul 5050H  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (Uvinul 5050H; stabilizing mixts. contg. hindered amines and  
 combinations of 2 salts of **magnesium** and(or) **zinc**  
 for polyolefins)

IT 9002-88-4  
 RL: POF (Polymer in formulation); USES (Uses)  
 (high-d.; stabilizing mixts. contg. hindered amines and combinations of  
 2 salts of **magnesium** and(or) **zinc** for polyolefins)

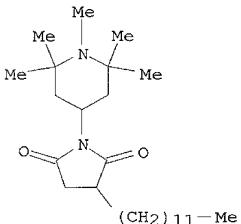
IT 142-72-3 557-04-0 557-05-1 557-34-6 1309-42-8,  
**Magnesium hydroxide** ( $Mg(OH)_2$ ) 1309-48-4,  
**Magnesium oxide** ( $MgO$ ), uses 1314-13-2, **Zinc oxide**  
 ( $ZnO$ ), uses 11097-59-9, DHT 4A 12125-28-9, **Magnesium**  
 carbonate hydroxide 14024-56-7 14024-63-6 16389-88-1, Dolomite  
 ( $CaMg(CO_3)_2$ ), uses 20427-58-1, **zinc hydroxide** ( $Zn$   
 ( $OH)_2$ ) 36177-92-1D, reaction products with cyanuric  
 chloride-ethanediylbis(propanediamine) copolymer 41556-26-7  
 52829-07-9 62782-03-0 64022-61-3  
 70198-29-7 71878-19-8 76505-58-3  
 85099-51-0 90751-07-8 91788-83-9  
 106990-43-6 115055-30-6 124172-53-8  
 131290-28-3 147783-69-5 150607-22-0, **Zinc**  
 carbonate hydroxide 164648-93-5 174587-71-4D, reaction  
 products with butyltetramethylpiperidinamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts  
 of **magnesium** and(or) **zinc** for polyolefins)

IT 9003-07-0  
 RL: POF (Polymer in formulation); USES (Uses)  
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts  
 of **magnesium** and(or) **zinc** for polyolefins)

IT 106917-30-0  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (Hals Me S 95; stabilizing mixts. contg. hindered amines and  
 combinations of 2 salts of **magnesium** and(or) **zinc**  
 for polyolefins)

RN 106917-30-0 HCAPLUS

CN 2,5-Pyrrolidinedione, 3-dodecyl-1-(1,2,2,6,6-pentamethyl-4-piperidinyl)-  
 (9CI) (CA INDEX NAME)

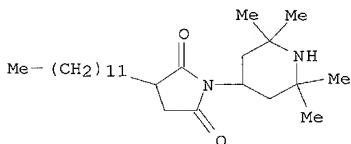


IT 79720-19-7  
 RL: MOA (Modifier or additive use); USES (Uses)

(Hals S 95, Uvasorb HA 88; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

RN 79720-19-7 HCAPLUS

CN 2,5-Pyrrolidinedione, 3-dodecyl-1-(2,2,6,6-tetramethyl-4-piperidinyl)-(9CI) (CA INDEX NAME)



IT 78301-43-6

RL: MOA (Modifier or additive use); USES (Uses)  
(Hostavin H 30; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

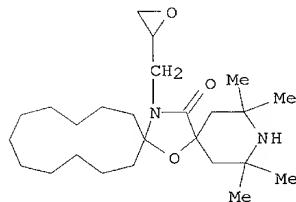
RN 78301-43-6 HCAPLUS

CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-20-(oxiranylmethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 78276-66-1

CMF C25 H44 N2 O3

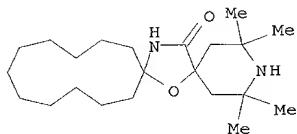


IT 64338-16-5

RL: MOA (Modifier or additive use); USES (Uses)  
(Hostavin N20; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

RN 64338-16-5 HCAPLUS

CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-(9CI) (CA INDEX NAME)



IT 159102-09-7

RL: MOA (Modifier or additive use); USES (Uses)  
(Lichtschutzstoff UV 31; stabilizing mixts. contg. hindered amines and  
combinations of 2 salts of magnesium and(or) zinc  
for polyolefins)

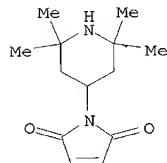
RN 159102-09-7 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-octadecyl-, polymer with (1-methylethenyl)benzene  
1-(2,6,6-tetramethyl-4-piperidinyl)-1H-pyrrole-2,5-dione (9CI) (CA  
INDEX NAME)

CM 1

CRN 84540-25-0

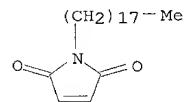
CMF C13 H20 N2 O2



CM 2

CRN 17450-30-5

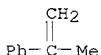
CMF C22 H39 N O2



CM 3

CRN 98-83-9

CMF C9 H10



IT 229966-35-2

RL: MOA (Modifier or additive use); USES (Uses)  
(Luchem HAB 18; stabilizing mixts. contg. hindered amines and  
combinations of 2 salts of **magnesium** and(or) **zinc**  
for polyolefins)

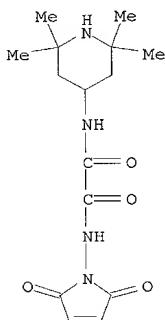
RN 229966-35-2 HCAPLUS

CN Ethanediamide, N-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-N'-(2,2,6,6-tetramethyl-4-piperidinyl)-, polymer with 1-octadecene (9CI) (CA INDEX NAME)

CM 1

CRN 155526-73-1

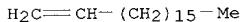
CMF C15 H22 N4 O4



CM 2

CRN 112-88-9

CMF C18 H36



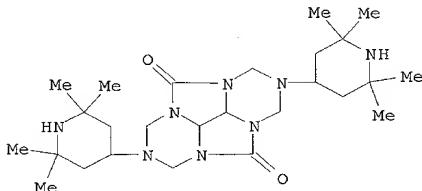
IT 109423-00-9

RL: MOA (Modifier or additive use); USES (Uses)  
(Uvinul 4049; stabilizing mixts. contg. hindered amines and  
combinations of 2 salts of **magnesium** and(or) **zinc**  
for polyolefins)

RN 109423-00-9 HCAPLUS

CN 1H,4H,5H,8H-2,3a,4a,6,7a,8a-Hexaaazacyclopenta[def]fluorene-4,8-dione,  
hexahydro-2,6-bis(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX

NAME)



IT 557-04-0 557-05-1 11097-59-9, DHT 4A  
36177-92-1D, reaction products with cyanuric chloride-  
ethanediylbis(propanediamine) copolymer 41556-26-7  
52829-07-9 62782-03-0 64022-61-3  
70198-29-7 71878-19-8 76505-58-3  
85099-51-0 90751-07-8 91788-83-9  
106990-43-6 115055-30-6 124172-53-8  
131290-28-3 147783-69-5 164648-93-5  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizing mixts. contg. hindered amines and combinations of 2 salts  
of magnesium and(or) zinc for polyolefins)  
RN 557-04-0 HCAPLUS  
CN Octadecanoic acid, magnesium salt (9CI) (CA INDEX NAME)

HO<sub>2</sub>C—(CH<sub>2</sub>)<sub>16</sub>—Me

●1/2 Mg

RN 557-05-1 HCAPLUS  
CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

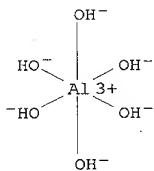
HO<sub>2</sub>C—(CH<sub>2</sub>)<sub>16</sub>—Me

●1/2 Zn

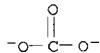
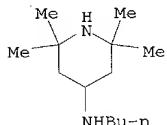
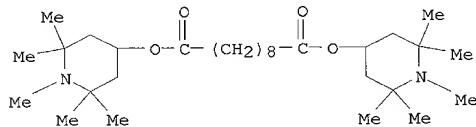
RN 11097-59-9 HCAPLUS  
CN Aluminate (Al(OH)<sub>6</sub><sup>3-</sup>), (OC-6-11)-, magnesium carbonate hydroxide (2:6:1:4)  
(9CI) (CA INDEX NAME)

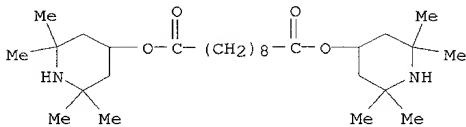
CM 1

CRN 18893-33-9  
CMF Al H6 O6  
CCI CCS

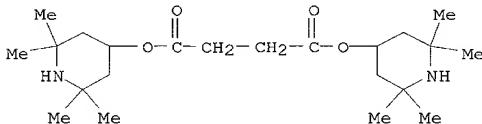


CM 2

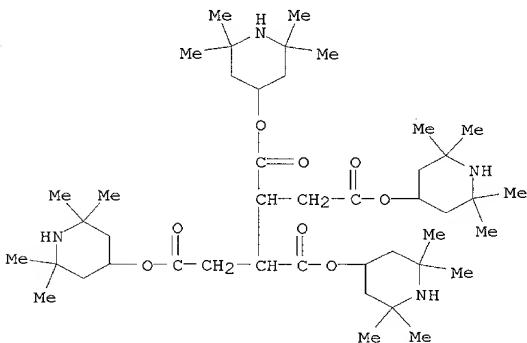
CRN 3812-32-6  
CMF C O3RN 36177-92-1 HCAPLUS  
CN 4-Piperidinamine, N-butyl-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)RN 41556-26-7 HCAPLUS  
CN Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)RN 52829-07-9 HCAPLUS  
CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 62782-03-0 HCAPLUS  
CN Butanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



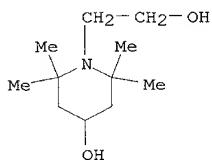
RN 64022-61-3 HCAPLUS  
CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 70198-29-7 HCAPLUS  
CN Butanedioic acid, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol (9CI) (CA INDEX NAME)

CM 1

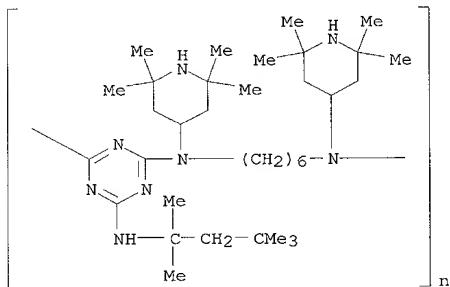
CRN 52722-86-8  
CMF C11 H23 N O2



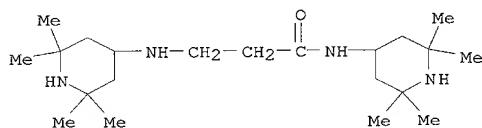
CM 2

CRN 110-15-6  
CMF C4 H6 O4HO<sub>2</sub>C—CH<sub>2</sub>—CH<sub>2</sub>—CO<sub>2</sub>H

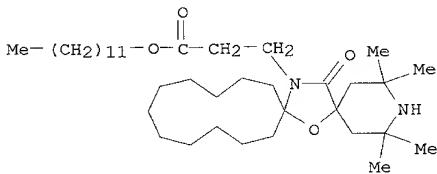
RN 71878-19-8 HCAPLUS  
 CN Poly[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



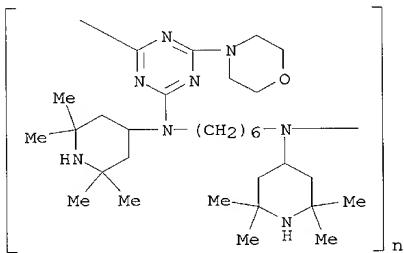
RN 76505-58-3 HCAPLUS  
 CN Propanamide, N-(2,2,6,6-tetramethyl-4-piperidinyl)-3-[(2,2,6,6-tetramethyl-4-piperidinyl)amino]- (9CI) (CA INDEX NAME)



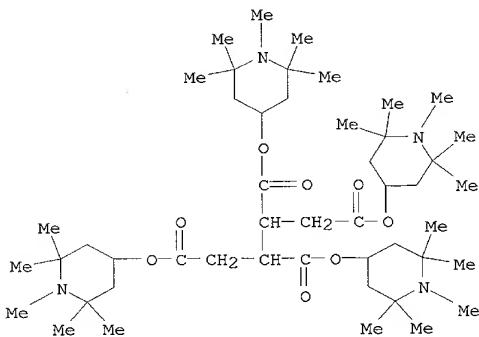
RN 85099-51-0 HCAPLUS  
CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosane-20-propanoic acid,  
2,2,4,4-tetramethyl-21-oxo-, dodecyl ester (9CI) (CA INDEX NAME)



RN 90751-07-8 HCAPLUS  
CN Poly[[(6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl)[(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



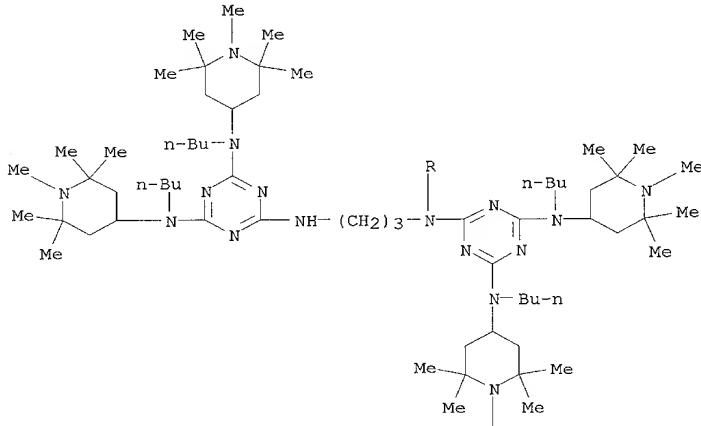
RN 91788-83-9 HCAPLUS  
CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 106990-43-6 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, N,N''-1,2-ethanediylbis[N-[3-[(4,6-bis[butyl(1,2,2,6,6-pentamethyl-4-piperidinyl)amino]-1,3,5-triazin-2-ylamino)propyl]-N',N'-dibutyl-N',N'-bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-(9CI) (CA INDEX NAME)

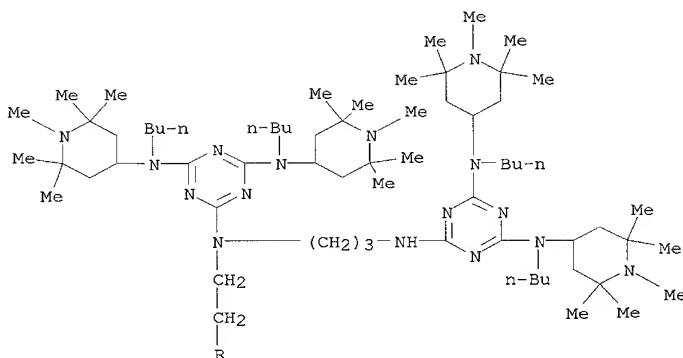
PAGE 1-A



PAGE 2-A



PAGE 3-A



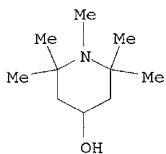
RN 115055-30-6 HCPLUS

CN 1,2,3,4-Butanetetracarboxylic acid, polymer with  
 .beta.,.beta.,.beta.',.beta.''-tetramethyl-2,4,8,10-  
 tetraoxaspiro[5.5]undecane-3,9-diethanol, 1,2,2,6,6-pentamethyl-4-  
 piperidinyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 2403-89-6

CMF C10 H21 N O



CM 2

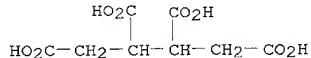
CRN 182760-78-7

CMF (C15 H28 O6 . C8 H10 O8)x

CCI PMS

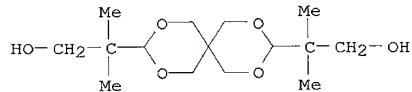
CM 3

CRN 1703-58-8  
CMF C8 H10 O8

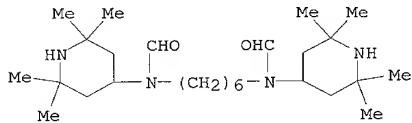


CM 4

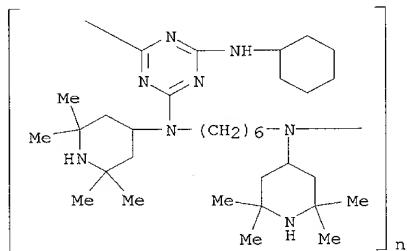
CRN 1455-42-1  
CMF C15 H28 O6



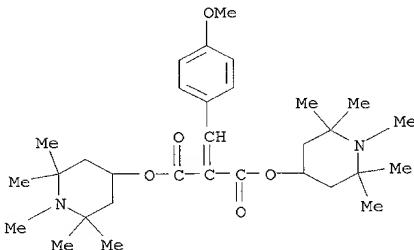
RN 124172-53-8 HCPLUS  
CN Formamide, N,N'-1,6-hexanediylbis[N-(2,2,6,6-tetramethyl-4-piperidinyl)-  
(9CI) (CA INDEX NAME)



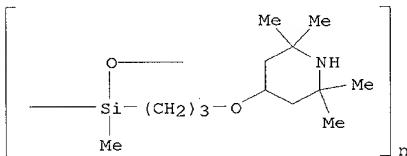
RN 131290-28-3 HCPLUS  
CN Poly[6-(cyclohexylamino)-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyi[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



RN 147783-69-5 HCAPLUS  
 CN Propanedioic acid, [(4-methoxyphenyl)methylene]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 164648-93-5 HCAPLUS  
 CN Poly[oxy[methyl[3-[(2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]silylene]] (9CI) (CA INDEX NAME)



L61 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1997104365 HCAPLUS

DN 126:132461

TI Vinyl chloride-ethylene copolymer agricultural films containing hindered amines with weatherability

IN Machida, Toshimi; Kanai, Tokutaro; Kikuiri, Nobuyuki

PA Achilles Corp, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L027-06

ICS A01G009-14; A01G013-02; C08K005-3435

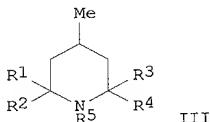
CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08302133	A2	19961119	JP 1995-136045	19950510
	JP 2981413	B2	19991122		
PRAI	JP 1995-136045		19950510		

GI



AB Title films, useful for greenhouse showing corrosion inhibition at parts contacted to metal frames, are obtained from compns. contg. 100 parts mixts. of 5-100% 99.1/0.1-93.0/7.0 vinyl chloride (I)-ethylene (II) copolymer and 0-95% other PVC-based resins at total I contents 0.1-70% and 0.01-0.2 parts **hindered amines** having piperidinyl structure III (R1-5 = H, C1-4 alkyl). Thus, 98.5:1.5 I-II copolymer 100, di(2-ethylhexyl) phthalate 47, trixylyl phosphate 3.0, QOC(O)(CH<sub>2</sub>)<sub>8</sub>CO<sub>2</sub>Q (Q = III; R1-4 = Me; R5 = H) 0.1, an epoxy resin 1.5, a Ba-Zn stabilizer 2.0, methylenebisstearamide 0.3, a UV absorber 0.1, a sorbitan-type dripping inhibitor 2.0, and a F-contg. compd. 0.1 part was melt-kneaded at 175.degree. and calender-molded to give a film, which was used as greenhouse to show no yellowing at the part contacted to metal after 18 mo.

ST vinyl chloride ethylene copolymer film; agricultural film PVC hindered amine; greenhouse PVC film corrosion resistance; piperidinyl hindered amine PVC film; weatherability PVC film hindered amine

IT Weathering  
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with weatherability)

IT Corrosion-resistant materials

Greenhouses  
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)

IT 9002-86-2, PVC  
RL: MOA (Modifier or additive use); USES (Uses)  
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)

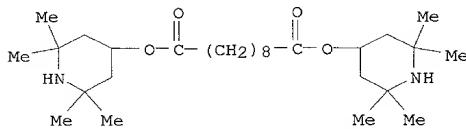
IT 52829-07-9 91613-21-7 91788-83-9  
RL: MOA (Modifier or additive use); USES (Uses)  
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)

IT 25037-78-9, Ethylene-vinyl chloride copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)

IT 52829-07-9 91613-21-7 91788-83-9  
RL: MOA (Modifier or additive use); USES (Uses)  
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)

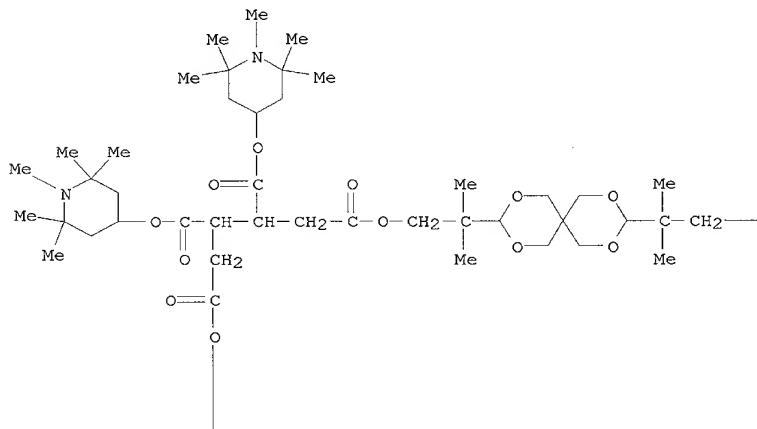
RN 52829-07-9 HCAPLUS

CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)

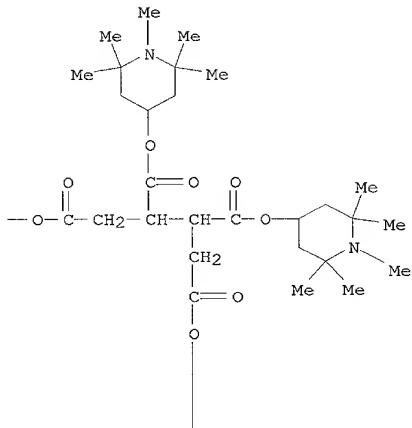


RN 91613-21-7 HCAPLUS  
CN 1,2,3,4-Butanetetracarboxylic acid, 1,1'-[2,4,8,10-tetraoxaspiro[5.5]undecane-3,9-diyl]bis(2,2-dimethyl-2,1-ethanediyl) 2,2',3,3',4,4'-hexakis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)

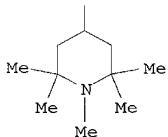
PAGE 1-A



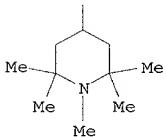
PAGE 1-B



PAGE 2-A

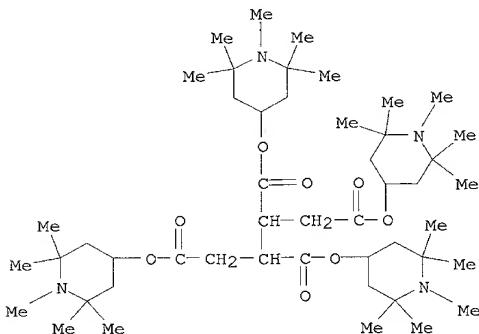


PAGE 2-B



RN 91788-83-9 HCAPLUS

CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



1.61 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1994:682391 HCAPLUS

DN 121:282391

TI High-pot-life and dyeable coatings for lenses

IN Takeshita, Katsuyoshi; Nakajima, Mikito; Kubota, Satoshi

PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D163-00

ICS C08K003-22; C08K003-24; C08K005-15; C08K005-17; G02B001-10

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06136318	A2	19940517	JP 1993-138665	19930610
PRAI	JP 1992-240910		19920909		
AB Title coatings comprise inorg. oxides with diam. of 1-100 m.mu., reactive silanes, polyfunctional epoxides, Mg(ClO <sub>4</sub> ) <sub>2</sub> , and hindered amine light stabilizers. A compn. contg. Catalloid SN, Denacol EX 212, 3-glycidoxypropylmethyldiethoxysilane condensate, and Sanol LS 770, and Mg(ClO <sub>4</sub> ) <sub>2</sub> showed good pot life at room temp. for 1 mo and was coated on a polycarbonate lens to form a 2.3-.mu.m film with good dyeability.					
ST dyeable epoxy siloxane coating lens; storage stability epoxy siloxane coating					
IT Lenses (dyeable and storage-stable epoxy siloxane coatings for lenses)					
IT Oxides, uses RL: MOA (Modifier or additive use); USES (Uses) (fine particles; dyeable and storage-stable epoxy siloxane coatings for lenses)					
IT Light stabilizers (hindered amines; dyeable and storage-stable epoxy siloxane coatings for lenses)					

IT Polycarbonates, miscellaneous  
RL: MSC (Miscellaneous)  
(lenses; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Siloxanes and Silicones, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(epoxy, dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(hindered, light stabilizer; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Epoxy resins, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(siloxane-, dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Coating materials  
(storage-stable, dyeable and storage-stable epoxy siloxane coatings for lenses)

IT 10034-81-8, Magnesium perchlorate  
RL: MOA (Modifier or additive use); USES (Uses)  
(dyeable and storage-stable epoxy siloxane coatings for lenses)

IT 159012-23-4 159012-24-5 159012-25-6  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(dyeable and storage-stable epoxy siloxane coatings for lenses)

IT 1306-38-3, Ceric oxide, uses 1314-23-4, Zirconia, uses 7631-86-9,  
Silica, uses 13463-67-7, Titania, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(fine particles; dyeable and storage-stable epoxy siloxane coatings for lenses)

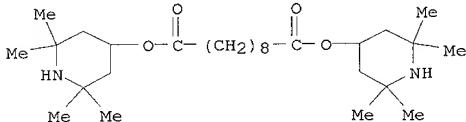
IT 25656-90-0, Poly(diethylene glycol bisallyl carbonate)  
RL: MSC (Miscellaneous)  
(lenses; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT 52829-07-9, Sanol LS 770 73754-27-5, Sanol LS 2626  
RL: MOA (Modifier or additive use); USES (Uses)  
(light stabilizer; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT 52829-07-9, Sanol LS 770 73754-27-5, Sanol LS 2626  
RL: MOA (Modifier or additive use); USES (Uses)  
(light stabilizer; dyeable and storage-stable epoxy siloxane coatings for lenses)

RN 52829-07-9 HCAPLUS

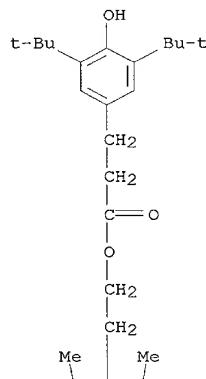
CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



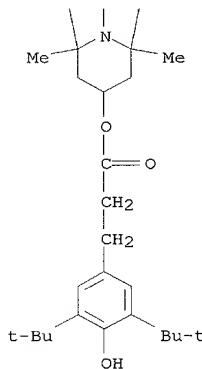
RN 73754-27-5 HCAPLUS  
CN Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-,

1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxoproxy]ethyl-  
2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



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DN 114:83188  
TI Heat- and light-resistant milk white methacrylic resins and their manufacture  
IN Yoshimura, Osamu; Suzuki, Tetsuo; Bando, Satoshi; Arakawa, Koji; Chatani, Michio  
PA Kyowa Gas Chemical Industry Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08F220-14  
      ICS C08F002-44; C08J005-00; C08L033-12  
ICA C08F220-20; C08F299-02; F21V001-22; F21V003-04  
CC 37-3 (Plastics Manufacture and Processing)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02202504	A2	19900810	JP 1989-21910	19890131
PRAI	JP 1989-21910		19890131		

AB Title resins, useful for covers for lights, comprise 100 parts polymers composed of 30-98% monofunctional unsatd. monomers mainly contg. Me methacrylate (I) and 2-70% polyfunctional unsatd. monomers, and 0.1-5 parts inorg. powders. The resins are manufd. by dispersing inorg. powders 0.1-5, benzotriazole-based UV absorbers 0-2, and hindered amine-based light stabilizers 0-2 parts in 100 parts the monomer mixts. or polymer-contg. syrups, polymg., and curing. Thus, 80 parts a syrup obtained by partially polymn. of I was mixed with 2-(5-methyl-2-hydroxyphenyl)benzotriazole 0.3, bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 0.5, 1,1-bis(tert-butylperoxy)-3,3,5-trimethylcyclohexane 0.1, neopentyl glycol dimethacrylate 20, powd. Al(OH)3 (av. particle size 3 .mu.m) 2, and TiO2 paste 0.3 parts, and cast at 70-130.degree. to give 2-mm milk white plates showing heat distortion temp. 140.degree., which did not deform after 3-mo irradn. of 300 W mercury lamp at 110.degree. and 30 cm distance.

ST methacrylate polymer plate milk white; heat resistant methacrylate polymer; light cover methacrylate polymer; neopentyl glycol dimethacrylate polymer plate; aluminum hydroxide methacrylate polymer plate; hydroxyphenyl benzotriazole methacrylate polymer plate; tetramethylpiperidyl sebacate methacrylate polymer plate

IT Electric lamps  
      (covers for, methacrylate resins contg. inorg. powders and stabilizers as, milk white)

IT Heat-resistant materials  
      (methacrylate resins, contg. inorg. powders, light-resistant milk white, for covers for lights)

IT Mica-group minerals, uses and miscellaneous

RL: USES (Uses)  
      (powd., methacrylate resins contg. Clarite 600W, milk-white, heat- and light-resistant, for covers for lights)

IT 2440-22-4, 2-(5-Methyl-2-hydroxyphenyl)benzotriazole 70321-86-7  
RL: USES (Uses)  
      (UV absorbers, methacrylate resins contg., for covers for lights)

IT 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate  
107119-91-5, Mark IA 62  
RL: USES (Uses)  
      (light stabilizers, methacrylate resins contg., for covers for lights)

IT 25101-19-3P, Methyl methacrylate-triethylene glycol dimethacrylate copolymer 25777-71-3P, Ethylene glycol dimethacrylate-methyl methacrylate

copolymer 28931-67-1P, Methyl methacrylate-trimethylopropane trimethacrylate copolymer 32756-06-2P, 1,3-Butylene glycol dimethacrylate-methyl methacrylate copolymer 52857-82-6P, Methyl methacrylate-neopentyl glycol dimethacrylate copolymer 53621-05-9P, 1,6-Hexanediol dimethacrylate-methyl methacrylate copolymer 73882-59-4P, Methyl methacrylate-tetramethylopropane tetramethacrylate copolymer

RL: PREP (Preparation)

(manuf. of, as heat-resistant milk-white compns. contg. inorg. powders, for covers for lights)

IT 1305-62-0, Calcium hydroxide, uses and miscellaneous 1309-42-8, Magnesium hydroxide 14808-60-7, Crystalite AA, uses and miscellaneous 21645-51-2, Aluminum hydroxide, uses and miscellaneous

RL: USES (Uses)

(powd., methacrylate resins contg., milk white heat- and light-resistant, for covers for lights)

IT 471-34-1, Calcium carbonate, uses and miscellaneous

RL: USES (Uses)

(pptd., powd., methacrylate resins contg., milk white heat- and light-resistant, for covers for lights)

IT 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

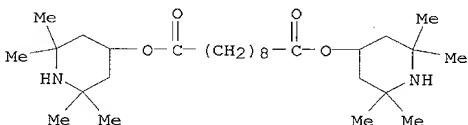
107119-91-5, Mark LA 62

RL: USES (Uses)

(light stabilizers, methacrylate resins contg., for covers for lights)

RN 52829-07-9 HCPLUS

CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



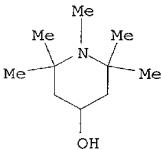
RN 107119-91-5 HCPLUS

CN 1,2,3,4-Butanetetracarboxylic acid, 1,2,2,6,6-pentamethyl-4-piperidinyl tridecyl ester (9CI) (CA INDEX NAME)

CM 1

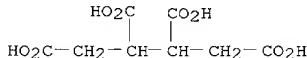
CRN 2403-89-6

CMF C10 H21 N O



CM 2

CRN 1703-58-8  
CMF C8 H10 O8



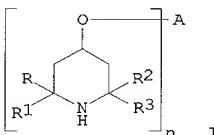
CM 3

CRN 112-70-9  
CMF C13 H28 O

Me- (CH<sub>2</sub>)<sub>12</sub>-OH

L61 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1984:175921 HCAPLUS  
DN 100:175921  
TI Vinyl chloride polymer films for agricultural coverings  
PA Mitsubishi Monsanto Chemical Co., Japan  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC C08L027-06; C08K005-34  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 19, 42  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58206652	A2	19831201	JP 1982-90248	19820527
	JP 63051458	B4	19881014		
PRAI	JP 1982-90248		19820527		
GI					



AB A flexible vinyl chloride-based film for use as an agricultural covering with improved water and dust-attraction resistance contains 0.02-8% **hindered amine** (I; A = mono- to tetravalent acyl; R-R<sub>3</sub> =

C1-4 alkyl; n = 1-4) and is coated with an acrylic copolymer contg. 5-40% hydroxyalkyl (meth)acrylate and 0-20% carboxy-contg. vinyl monomer. Thus, a mixt. of PVC [9002-86-2] (d.p. 1400) 100, dioctyl phthalate 50, tricresyl phosphate 5, epoxidized soybean oil 1, Ba-Zn stabilizer 1.5, Ba stearate 0.2, Zn stearate 0.4, sorbitan monostearate 1.5, and I (A = sebacoyl; R = R1 = R2 = R3 = Me; n = 2) (II) [52829-07-9] 0.5 part was kneaded at 180.degreee. and formed into a 0.1-mm film. The film was then coated with a 20% iso-PrOH soln. of 30:25:45 Bu acrylate-2-hydroxypropyl acrylate-Me methacrylate copolymer [89761-77-3] to a thickness of 2 .mu. (dry), exhibiting no whitening after 24-h immersion in 50.degreee. water and .gtoreq.80% light transmittance (at 555 nm.) after 18 mo of outdoor exposure, compared with whitening over all parts of the film and .ltoreq.45% transmittance, resp., for a film laminate without II.

ST PVC film agricultural covering; tetramethylpiperidyl sebacate PVC film greenhouse; hydroxypropyl acrylate copolymer coating greenhouse; methyl methacrylate copolymer coating greenhouse; butyl acrylate copolymer coating greenhouse

IT Greenhouses

(PVC films contg. hindered amines for, coated with acrylic polymers, water- and dust-attraction-resistant)

IT Coating materials

(hydroxyl group-contg. acrylic polymers, for PVC films, for water- and dust-attraction-resistant agricultural coverings)

IT 9002-86-2

RL: USES (Uses)

(films, flexible, contg. hindered amines, coated with acrylic polymers, water- and dust-attraction-resistant, for agricultural coverings)

IT 25951-39-7 26351-99-5 52664-72-9 89761-77-3 89761-78-4

RL: USES (Uses)

(flexible PVC films coated with, water- and dust-attraction-resistant, for agricultural coverings)

IT 52829-07-9 69825-09-8 85279-79-4

RL: USES (Uses)

(flexible PVC films contg., coated with acrylic polymers, for agricultural coverings)

L61 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1984:104474 HCAPLUS

DN 100:104474

TI PVC sheets for use as agricultural coverings

PA Mitsubishi Monsanto Chemical Co., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

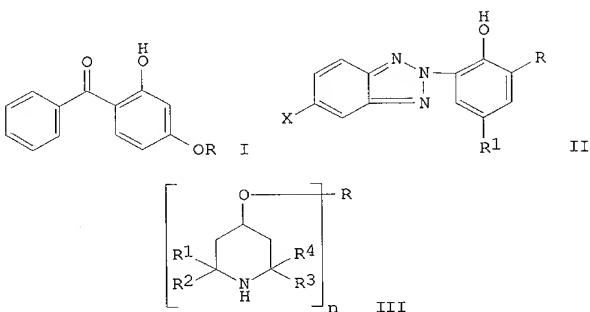
IC C08L027-06; C08K005-34

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 19, 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58142928	A2	19830825	JP 1982-27044	19820222
	JP 63020458	B4	19880427		
PRAI	JP 1982-27044		19820222		
GI					



AB A weather-resistant vinyl chloride-based polymer film for use as an agricultural covering (esp. for cultivation of eggplant) contains as UV light absorber a benzophenone deriv. (I; R = C1-18 alkyl) and/or a benzotriazole deriv. (II; R, R1 = H, C1-18 alkyl; X = H, halogen) and 0.05-1.0 phr hindered amine (III; R1-R4 = C1-4 alkyl; R = acyl; n = 1-4) and has 25-60% av. transmittance at wavelengths between 300 and 350 nm. Thus, a mixt. of PVC [9002-86-2] (d.p. 1400) 100, diocyo phthalate 45, EP 828 (epoxy resin) 1, Ba-Zn stabilizer 1.5, Ba stearate 0.2, Zn stearate 0.4, sorbitan monostearate 1.5, 2-hydroxy-4-n-octyloxybenzophenone (IV) [1843-05-6] 0.12, and 4-benzyloxy-2,2,6,6-tetramethylpiperidine [26275-88-7] 0.20 part was kneaded at 165.degree. and calendered to give a film (thickness 0.1 mm; av. transmittance 39% at 300-350 nm) exhibiting 80% retention of elongation after 18 mo of outdoor use and producing ripe eggplants with a normal color. A film of similar compn. except contg. 0.04 part IV (66% transmittance of light) exhibited 60-80% retention of elongation with some film discoloration, although it also produced eggplant with normal color.

ST PVC sheet agricultural covering eggplant; benzophenone PVC agricultural covering sheet; piperidine deriv PVC agricultural covering

IT Greenhouses  
(cover films for, from PVC contg. hindered amines and UV stabilizers, weather-resistant)

IT Eggplant  
(cultivation of, PVC cover films for)

IT 26275-88-7 52829-07-9 66569-20-8  
RL: USES (Uses)  
(PVC sheets contg. UV absorbers and, for agricultural coverings, weather-resistant)

IT 131-56-6 131-57-7 1843-05-6 2440-22-4 3147-76-0 3896-11-5  
RL: USES (Uses)  
(PVC sheets contg. hindered amines and, for agricultural coverings, weather-resistant)

IT 9002-86-2  
RL: USES (Uses)  
(sheets, contg. hindered amines and UV light absorbers, for agricultural coverings, weather-resistant)

AN 1983:144520 HCAPLUS  
DN 98:144520  
TI Hindered amine light stabilizers for polymers  
IN Hoffman, Joseph A.  
PA American Cyanamid Co. , USA  
SO U.S., 6 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
IC C08K005-35; C08K005-34; C07D413-12; C07D401-12; C07D211-06  
NCL 524096000  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 35  
FAN.CNT 1  

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4370430	A	19830125	US 1981-297681	19810831
PRAI	US 1981-297681		19810831		

AB A hindered amine light stabilizer having the formula H[NR2NR1S(=O)2Z1S(=O)2]nR2 [R, R1 = H, C1-20 alkyl, (un)substituted piperidyl; Z = C2-20 alkylene which is interrupted by O, S, or N(R3), C5-10 cycloalkylene, C6-12 arylene, C8-16 aralkylene; R3 = H, C1-20 alkyl, (un)substituted piperidyl; Z1 = C6-12 (un)substituted arylene; R2 = halogen, (di)(C1-8 alkyl)amino, piperidyl, pyrrolidyl, morpholino, N(R) ZN(R1)H; n = 1-5] was effective for polymers, particularly polyolefins. Thus, a mixt. of 12.0 g 4,4'- (hexamethylenedimino)bis(2,2,6,6-tetramethylpiperidine in 300 mL water was treated with a mixt. of 8.2 g 1,3-(ClO2S)2C6H4 in 200 mL CH2Cl2 in a blender for 10 min to give 8.0 g polymer [85227-00-5]. A blend contg. the above product 0.25, unstabilized polypropylene [9003-07-0] 100, and a processing antioxidant 0.1g was milled at 350-370 F.degree. for 5 min and compression molded at 400.degree. F into a film 4-5 mils thick. The film exhibited failure after 800 h of exposure to xenon arc as shown by a 0.1% increase in the carbonyl content of the film.

ST light stabilizer hindered amine polymer; piperidine light stabilizer; polypropylene; benzenedisulfonyl chloride copolymer light stabilizer; polysulfonamide piperidine deriv light stabilizer

IT Light stabilizers  
(hindered amine-contg. disulfonamides, for polypropylene)

IT Polysulfonamides  
RL: USES (Uses)  
(hindered piperidyl-modified, light stabilizers, for polyolefins)

IT 9003-07-0  
RL: USES (Uses)  
(light stabilizers for, tetramethylpiperidyl-modified polysulfonamides as)

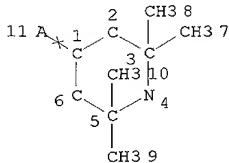
IT 109-73-9, uses and miscellaneous  
RL: USES (Uses)  
(light stabilizers, contg. tetramethylpiperidyl-modified polysulfonamides, for polypropylene)

IT 85227-00-5 85241-18-5  
RL: MOA (Modifier or additive use); USES (Uses)  
(light stabilizers, for polypropylene)

=> D QUE  
L37 11 SEA FILE=REGISTRY ABB=ON (106990-43-6/BI OR 11097-59-9/BI OR 178261-60-4/BI OR 178261-61-5/BI OR 557-04-0/BI OR 557-05-1/BI

OR 70198-29-7/BI OR 71878-19-8/BI OR 9002-88-4/BI OR 9003-07-0/  
 BI OR 9010-79-1/BI)  
 STR

L38



## NODE ATTRIBUTES:

NSPEC IS RC AT 11  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ELEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 11

## STEREO ATTRIBUTES: NONE

L40 20621 SEA FILE=REGISTRY SSS FUL L38  
 L41 11750 SEA FILE=HCAPLUS ABB=ON L40  
 L43 25 SEA FILE=HCAPLUS ABB=ON L41(L)HINDER?(3A)AMINE#(L)MIXTURE?  
 L44 29 SEA FILE=HCAPLUS ABB=ON L41 AND HINDER?(3A)AMINE#(3A)MIXTURE?  
 L45 50 SEA FILE=HCAPLUS ABB=ON L43 OR L44  
 L46 8 SEA FILE=HCAPLUS ABB=ON L45 AND (ZN OR ZINC OR MG OR MAGNESIUM  
 )  
 L51 37 SEA FILE=HCAPLUS ABB=ON (TWO OR DIFFERENT) (3A)HINDER?(3A)AMINE  
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 L53 0 SEA FILE=HCAPLUS ABB=ON L52 AND (ZN OR ZINC OR MG OR MAGNESIUM  
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 L58 10218 SEA FILE=HCAPLUS ABB=ON L57  
 L59 4 SEA FILE=HCAPLUS ABB=ON L45 AND L58  
 L60 1 SEA FILE=HCAPLUS ABB=ON (L52 OR L54) AND L58  
 L61 14 SEA FILE=HCAPLUS ABB=ON L46 OR L53 OR L56 OR L59 OR L60  
 L62 48 SEA FILE=HCAPLUS ABB=ON COMBINATION# (3A)HINDER?(3A)AMINE#  
 L63 38 SEA FILE=HCAPLUS ABB=ON L41 AND L62  
 L64 5 SEA FILE=HCAPLUS ABB=ON L63 AND (L58 OR ZN OR MG OR ZINC OR  
 MAGNESIUM)  
 L65 3 SEA FILE=HCAPLUS ABB=ON (L61 OR L64) NOT L61

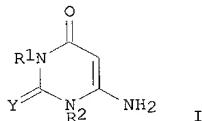
=> D L65 ALL 1-3 HITSTR

L65 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1997:374625 HCAPLUS  
 DN 126:344216

TI Stabilizer combinations for chlorinated polymers, especially poly(vinyl chloride)  
 IN Wehner, Wolfgang; Friedrich, Hans-helmut; Malzacher, Kornelia; Mehner,  
 Hans-ludwig; Drewes, Rolf  
 PA Ciba Specialty Chemicals Holding Inc., Switz.  
 SO Eur. Pat. Appl., 1-43  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM C08K005-00  
 ICS C08K013-02  
 ICA C08L027-06  
 ICI C08K013-02, C08K005-3462, C08K003-34, C08K003-16, C08K003-22; C08K005-00,  
 C08K005-04, C08K005-3462, C08K005-15, C08K005-3435, C08K005-57  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 768336	A2	19970416	EP 1996-810664	19961004
	EP 768336	A3	19980128		
	EP 768336	B1	20020918		
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	TW 505676	B	20021011	TW 1996-85111925	19961001
	AU 9668041	A1	19970417	AU 1996-68041	19961004
	AU 714489	B2	20000106		
	EP 1046668	A2	20001025	EP 2000-117205	19961004
	EP 1046668	A3	20001102		
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	AT 224423	E	20021015	AT 1996-810664	19961004
	ES 2134177	T3	20030216	ES 1996-810664	19961004
	EP 1325941	A1	20030709	EP 2003-3584	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327658	A1	20030716	EP 2003-3579	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327659	A1	20030716	EP 2003-3582	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327660	A1	20030716	EP 2003-3583	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327661	A1	20030716	EP 2003-3585	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327662	A1	20030716	EP 2003-3586	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	US 5925696	A	19990720	US 1996-728870	19961010
	CA 2187708	AA	19970414	CA 1996-2187708	19961011
	NO 9604328	A	19970414	NO 1996-4328	19961011
	ZA 9608605	A	19970414	ZA 1996-8605	19961011
	CN 1154381	A	19970716	CN 1996-112735	19961011
	BR 9605107	A	19980707	BR 1996-5107	19961011
	JP 09125058	A2	19970513	JP 1996-291129	19961014
	US 6194494	B1	20010227	US 1998-107848	19980630
	AU 735549	B2	20010712	AU 1999-58328	19991105
	AU 9958328	A1	20000113		
	AU 759954	B2	20030501	AU 2000-72572	20001229
PRAI	CH 1995-2912	A	19951013		
	CH 1995-3151	A	19951107		
	EP 1996-810664	A3	19961004		
	EP 2000-117205	A3	19961004		
	AU 1999-58328	A3	19991105		

OS MARPAT 126:344216  
GI



AB A title compn. comprises (A) .gtoreq.1 pyrimidinone [I; R\*1, R\*2 = C1-12 alkyl, C3-6 alkenyl, (un)substituted C5-8 cycloalkyl, (un)substituted C7-9 phenylalkyl; R\*1 .noteq. R\*2 = H, C1-12 alkyl; Y = S, O] and (B) .gtoreq.1 of a perchlorate, glycidyl compd., .beta.-diketone or .beta.-ketoester, (poly)dihydropyridine, polyol or disaccharide alc., sterically hindered amine, zeolite, hydrotalcite, Dawsonite, alkali or alk. earth hydroxide or (hydrogen)carbonate or carboxylate, antioxidant and lubricant, and organotin stabilizer. For example, test specimens of a compn. contg. Evipol SH-6030 (suspension PVC) 100, CH 300 (Ph diisodecyl phosphite; lubricant) 0.8, Wax E 0.4, epoxidized soybean oil 2.0, Rhodiastab-50 0.2, Chimassorb-944 (II) 0.15 and 6-amino-1,3-dimethyluracil (III) 1.0 parts had yellowness index 29.1 after heating for 25 min at 190.degree., vs. >60 for a similar sample stabilized with 1.0 part bis(dodecyloxycarbonyl-2,6-dimethyl-1,4-dihydropyridine) (Stavinor D 507) instead of II and III.

ST chlorinated polymer stabilization uracil deriv; polyvinyl chloride stabilizer uracil deriv; aminodimethyluracil stabilizer PVC heat degrdn; yellowing PVC uracil deriv stabilizer

IT Ketones, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(1,3-diketones; stabilizer combinations for poly(vinyl chloride) contg.)

IT Chalk  
RL: MOA (Modifier or additive use); USES (Uses)  
(Omyalite 30T; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))

IT Zeolites (synthetic), uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(P-type; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))

IT Zeolite NaA  
RL: MOA (Modifier or additive use); USES (Uses)  
(Wessalith P; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))

IT Polymers, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(chlorine-contg.; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))

IT Soybean oil  
RL: MOA (Modifier or additive use); USES (Uses)  
(epoxidized; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))

IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(hindered; stabilizer combinations for poly(vinyl

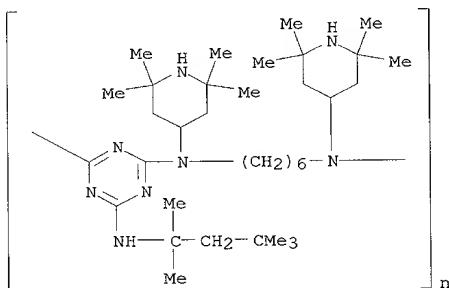
- chloride) contg.)
- IT Paraffin waxes, uses
  - RL: MOA (Modifier or additive use); USES (Uses)  
(lubricants, Hostalub H 4; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Fatty acids, uses
  - RL: MOA (Modifier or additive use); USES (Uses)  
(montan-wax, ethylene esters, Wax E; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Carboxylic acids, uses
  - RL: MOA (Modifier or additive use); USES (Uses)  
(oxo, esters; stabilizer combinations for poly(vinyl chloride) contg.)
- IT Alcohols, uses
  - RL: MOA (Modifier or additive use); USES (Uses)  
(polyhydric; stabilizer combinations for poly(vinyl chloride) contg.)
- IT Stabilizing agents
  - Yellowing prevention
    - Yellowing prevention  
(stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Antioxidants
  - Lubricants
    - (stabilizer combinations for poly(vinyl chloride) contg.)
- IT Alkalai metal hydroxides
  - Alkaline earth hydroxides
  - Disaccharides
  - Zeolites (synthetic), uses
    - RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizer combinations for poly(vinyl chloride) contg.)
- IT Polymer degradation
  - (thermooxidative, prevention; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT 77389-04-9
  - RL: MOA (Modifier or additive use); USES (Uses)  
(D 26-155; stabilizer combinations for chlorinated polymers contg.)
- IT 585-88-6, Malbit CR
  - RL: MOA (Modifier or additive use); USES (Uses)  
(Malbit CR; stabilizer combinations for chlorinated polymers contg.)
- IT 189687-79-4, Sodium perchlorate-Calcium carbonate-Calcium silicate mixture
  - RL: MOA (Modifier or additive use); USES (Uses)  
(Mark 6045ACM; stabilizer combinations for chlorinated polymers contg.)
- IT 9002-86-2, PVC polymer
  - RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(Solvic 268RC, Eviopol SH 6030; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT 36265-41-5, Stavinor D 507
  - RL: MOA (Modifier or additive use); USES (Uses)  
(Stavinor D 507; stabilizer combinations for chlorinated polymers contg.)
- IT 120218-34-0
  - RL: MOA (Modifier or additive use); USES (Uses)  
(Synesal M; stabilizer combinations for chlorinated polymers contg.)
- IT 1592-23-0, Calcium stearate 189897-10-7, Hostalub H 12
  - RL: MOA (Modifier or additive use); USES (Uses)  
(lubricant; stabilizer combinations for chlorinated polymers contg.)
- IT 126-58-9, Dipentaerythritol 463-79-6D, Carbonic acid, alkali metal and alk. earth metal salts, uses 557-05-1, Zinc stearate 6642-31-5, 6-Amino-1,3-dimethyluracil 7601-89-0, Sodium perchlorate

12539-23-0, Alcamizer I 16482-55-6, Dihydroxyaluminum sodium carbonate 19372-44-2, Calcium acetylacetone, uses 25068-38-6 25550-98-5, Phenyl diisodecyl phosphite 28825-96-9, Araldite PT 810 41740-15-2, 6-Amino-1,3-diethyluracil 41862-16-2, 6-Amino-1,3-dibutyluracil 58446-52-9, Rhodiastab 50 71878-19-8, Chimassorb 944  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizer combinations for chlorinated polymers contg.)  
IT 7440-31-5D, Tin, org. compds., uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizers; stabilizer combinations for chlorinated polymers contg.)  
IT 557-05-1, Zinc stearate 71878-19-8, Chimassorb  
944  
RL: MOA (Modifier or additive use); USES (Uses)  
(stabilizer combinations for chlorinated polymers contg.)  
RN 557-05-1 HCAPLUS  
CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

HO<sub>2</sub>C—(CH<sub>2</sub>)<sub>16</sub>—Me

●1/2 Zn

RN 71878-19-8 HCAPLUS  
CN Poly[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diy][2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



L65 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN  
AN 1996:718321 HCAPLUS  
DN 125:330549  
TI Stabilizer combinations for synthetic polymers, especially olefin polymers  
IN Bonora, Michela  
PA Ciba-Geigy A.-G., Switz.  
SO Ger. Offen., 27 PP.  
CODEN: GWXXBX  
DT Patent

LA German  
 IC ICM C08K005-34  
 ICS C08K005-3442; C08K003-20; C08J005-18; C08K013-02; C09K015-02;  
 C09K015-30; A01G009-22  
 ICA C07D211-94; C07D241-52; C07D295-24; C07D401-14  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19616185	A1	19961031	DE 1996-19616185	19960423
	DK 9600452	A	19961027	DK 1996-452	19960417
	GB 2300192	A1	19961030	GB 1996-7893	19960418
	GB 2300192	B2	19991006		
	AU 9650806	A1	19961107	AU 1996-50806	19960422
	AU 713801	B2	19991209		
	CN 1136574	A	19961127	CN 1996-105445	19960423
	CN 1074014	B	20011031		
	CA 2174924	AA	19961027	CA 1996-2174924	19960424
	ZA 9603304	A	19961025	ZA 1996-3304	19960425
	NL 1002950	A1	19961029	NL 1996-1002950	19960425
	NL 1002950	C2	19980527		
	FR 2733502	A1	19961031	FR 1996-5221	19960425
	FR 2733502	B1	19990402		
	JP 08302063	A2	19961119	JP 1996-129094	19960425
	BR 9602043	A	19981006	BR 1996-2043	19960425
	ES 2126484	A1	19990316	ES 1996-940	19960425
	ES 2126484	B1	19991116		
	BE 1010551	A3	19981006	BE 1996-376	19960426
	US 5948836	A	19990907	US 1997-939219	19970929
	HK 1012655	A1	20000519	HK 1998-114016	19981218
PRAI	IT 1995-MI834	A	19950426		
	US 1996-635815	B1	19960422		

OS MARPAT 125:330549

AB Combinations of a sterically hindered hydroxylamine or its ether or ester (e.g., 1-cyclohexyloxy-4-stearoyloxy-2,2,6,6-tetramethylpiperidine) and a compd. contg. .gt;two eq. 1 oxo and/or OH group bonded to a metal atom [e.g., ZnO or hydrotalcite Mg4.5Al2(OH)13.CO3.3.5H2O] are useful as light and heat stabilizers for olefin polymers including polymers exposed to pesticides (e.g., polyethylene films used on greenhouses treated with insecticidal fumigants).

ST amine hydroxyl ether ester stabilizer polyolefin; hydroxylamine hindered ether ester stabilizer polyolefin; zinc oxide stabilizer mixt polyolefin; hydrotalcite stabilizer mixt polyolefin; polyethylene heat light stabilizer mixt; polypropene heat light stabilizer mixt; greenhouse film polyolefin stabilizer mixt; insecticide fumigant greenhouse polyolefin film stabilizer; light stabilizer mixt polyolefin; antioxidant mixt polyolefin

IT Antioxidants

Light stabilizers  
 (mixts. of hindered amines and compds. with oxo and OH groups bonded to metals for use in olefin polymers)

IT Greenhouses

(stabilizer mixts. for polyolefin films for covering greenhouses treated by insecticidal fumigants)

IT Insecticides

(fumigants, stabilizer mixts. for polyolefin films for covering greenhouses treated by)

IT **Amines, uses**  
RL: MOA (Modifier or additive use); USES (Uses)  
(hindered, in stabilizer combinations for use in  
olefin polymers)

IT 9003-07-0, Polypropene  
RL: MSC (Miscellaneous)  
(combinations of stabilizers for)

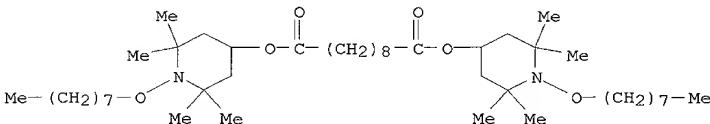
IT 9002-88-4, Polyethylene  
RL: MSC (Miscellaneous); TEM (Technical or engineered material use); USES  
(Uses)  
(films; combinations of stabilizers for)

IT 1309-42-8, **Magnesium** hydroxide 1309-48-4, **Magnesium**  
oxide, uses 1314-13-2, **Zinc** oxide, uses 1344-28-1, **Aluminum**  
oxide, uses 13204-65-3, Hydrotalcite 20427-58-1, **Zinc**  
hydroxide 21645-51-2, **Aluminum** hydroxide, uses 98036-77-2,  
Hydrotalcite 122586-52-1, Bis(1-octyloxy-2,2,6,6-  
tetramethylpiperidin-4-yl) sebacate 122586-54-3,  
Bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl) succinate  
122587-07-9 122587-08-0 130048-69-0,  
1-Cyclohexyloxy-4-stearoyloxy-2,2,6,6-tetramethylpiperidine 131494-77-4  
137575-21-4, **Aluminum** **magnesium** zinc carbonate oxide  
(Al2Mg3Zn(CO3)O6) 137575-22-5, **Aluminum** **magnesium** carbonate  
oxide (Al2Mg4(CO3)O6) 143128-90-9 150686-79-6  
183729-76-2, Bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-  
yl) adipate  
RL: MOA (Modifier or additive use); USES (Uses)  
(in stabilizer combinations for olefin polymers)

IT 122586-52-1, Bis(1-octyloxy-2,2,6,6-tetramethylpiperidin-4-yl)  
sebacate 122586-54-3, Bis(1-cyclohexyloxy-2,2,6,6-  
tetramethylpiperidin-4-yl) succinate 122587-07-9  
122587-08-0 130048-69-0, 1-Cyclohexyloxy-4-stearoyloxy-  
2,2,6,6-tetramethylpiperidine 143128-90-9 150686-79-6  
183729-76-2, Bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-  
yl) adipate  
RL: MOA (Modifier or additive use); USES (Uses)  
(in stabilizer combinations for olefin polymers)

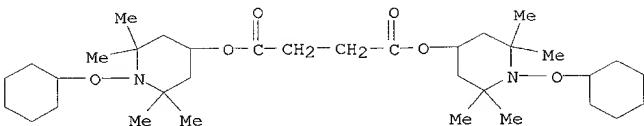
RN 122586-52-1 HCPLUS

CN Decanedioic acid, bis[2,2,6,6-tetramethyl-1-(octyloxy)-4-piperidinyl]  
ester (9CI) (CA INDEX NAME)



RN 122586-54-3 HCPLUS

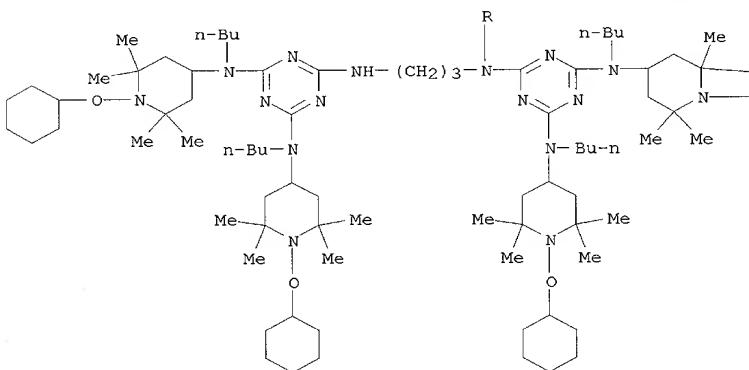
CN Butanedioic acid, bis[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]  
ester (9CI) (CA INDEX NAME)



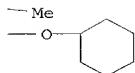
RN 122587-07-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, N,N''-1,2-ethanediylbis[N',N''-dibutyl-N-[3-[14,6-bis[butyl[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]amino]-1,3,5-triazin-2-yl]amino]propyl]-N',N''-bis[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]- (9CI) (CA INDEX NAME)

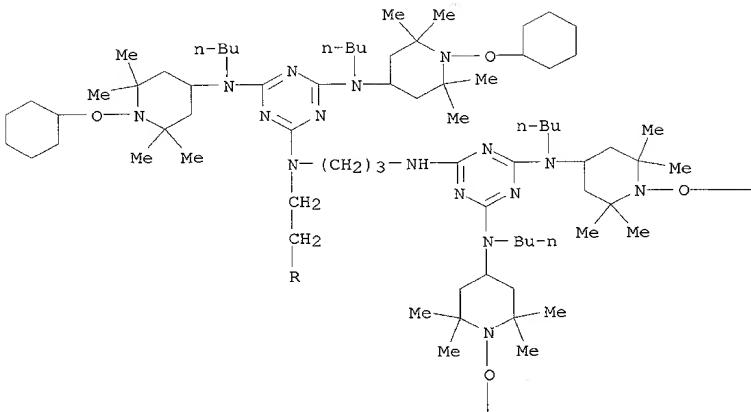
PAGE 1-A



PAGE 1-B



PAGE 2-A



PAGE 2-B



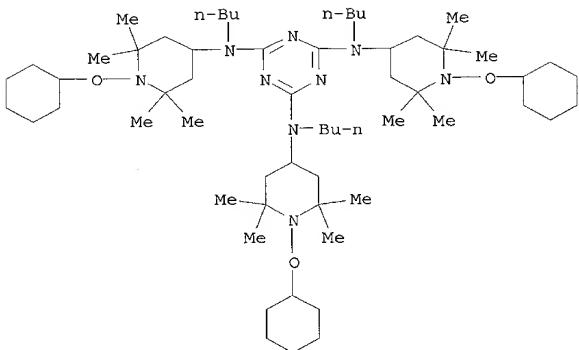
PAGE 3-A



RN 122587-08-0 HCAPLUS

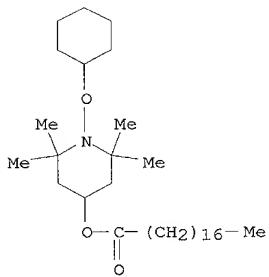
CN 1,3,5-Triazine-2,4,6-triamine, N,N',N'''-tributyl-N,N',N'''-tris[1-(cyclohexyloxy)-2,6,6-tetramethyl-4-piperidinyl]- (9CI) (CA INDEX NAME)

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290



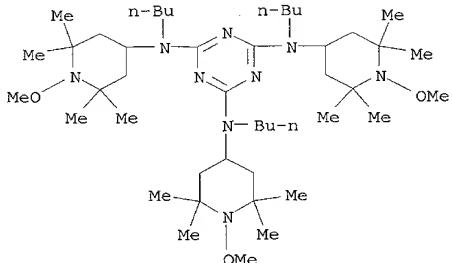
RN 130048-69-0 HCPLUS

CN Octadecanoic acid, 1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



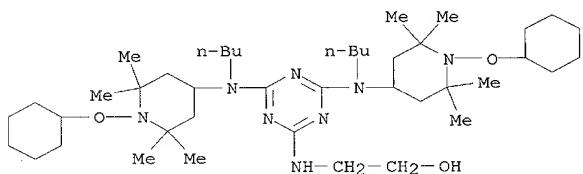
RN 143128-90-9 HCPLUS

CN 1,3,5-Triazine-2,4,6-triamine, N,N',N''-tributyl-N,N',N''-tris(1-methoxy-2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



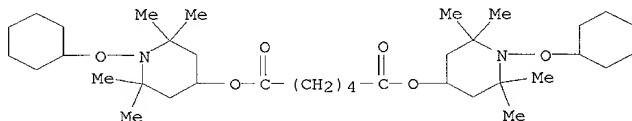
RN 150686-79-6 HCAPLUS

CN Ethanol, 2-[[4,6-bis[butyl[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]amino]-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)



RN 183729-76-2 HCAPLUS

CN Hexanedioic acid, bis[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl] ester (9CI) (CA INDEX NAME)



L65 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1987:479568 HCAPLUS

DN 107:79568

TI Metal-sulfonate/piperidine derivative combination protective coatings

IN Hayner, Roger E.

PA Ashland Oil, Inc., USA

SO U.S., 12 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM B05D001-04

ICS B05D001-06; B05D005-00; C04B009-02  
 NCL 427027000  
 CC 42-5 (Coatings, Inks, and Related Products)

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4650692	A	19870317	US 1985-794209	19851101
	CA 1269230	A1	19900522	CA 1986-521650	19861028
PRAI	US 1985-794209		19851101		
AB	Adding a combination of sterically hindered tertiary amines or derivs. e.g. piperidine derivs. to overbased Ca, Mg, Ba, Zn, etc. sulfonate, wax, and oxidized petrolatum compns. increases weather and salt-fog resistance. A coating contg. an overbased Ca sulfonate 72.9, oxidized petrolatum (Oxpel TAN15, acid no. 15) 7.3, microcryst. wax 7.3, Tinuvin 292 (I) 1.0, and Tinuvin 328 (II) 1.0 parts had salt spray corrosion resistance (ASTM B 117) 2000 h at 4.0 mil thickness and weatherability (ASTM G 26) >2000 h compared with no value and >560 resp., without I and II.				
ST	anticorrosive weather resistant coating; calcium sulfonate overbased coating; petroleum oxidized coating anticorrosive; piperidine deriv coating weatherable; UV stabilizer overbased coating				
IT	Coating materials (anticorrosive, weather-resistant, overbased alk. earth metal sulfonate contg. piperidine derivs., on steel)				
IT	Sulfonic acids, compounds RL: USES (Uses) (metal salts, alk. earth, overbased, contg. piperidine derivs., for improved weather-resistant coatings on steel)				
IT	Paraffin waxes and Hydrocarbon waxes, uses and miscellaneous RL: USES (Uses) (microcryst. overbased coatings contg., weather- and corrosion-resistant)				
IT	Petrolatum RL: USES (Uses) (oxidized, overbased coatings contg., weather- and corrosion-resistant)				
IT	Amines, uses and miscellaneous RL: USES (Uses) (tertiary, hindered, overbased coatings contg., with improved weather resistance)				
IT	12597-69-2 RL: MSC (Miscellaneous) (coating materials, anticorrosive, weather-resistant, overbased alk. earth metal sulfonate contg. piperidine derivs., on steel)				
IT	7440-70-2D, Calcium, sulfonates 109767-10-4 RL: TEM (Technical or engineered material use); USES (Uses) (coatings, contg. piperidine derivs., on steel)				
IT	25973-55-1 41556-26-7, Tinuvin 292 RL: USES (Uses) (overbased coatings contg., with improved weather resistance)				
IT	41556-26-7, Tinuvin 292 RL: USES (Uses) (overbased coatings contg., with improved weather resistance)				
RN	41556-26-7 HCPLUS				
CN	Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)				

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